Three Things We Have Learned about Key Indicators, Risk Assessments, and Differential Monitoring

Richard Fiene, Ph.D.

April 2018

After 40+ years of research regarding the Key indicator, Risk Assessment and Differential Monitoring methodologies in human service regulatory administration, there are certain consistencies that have been noted over the years. I have highlighted some of these in Technical Research Notes (please see http://RIKInstitute.com) in the past but there are three that I feel are so significant that I wanted to review them here together.

One, in creating the data base for Key Indicators, the best model for sorting the program licensing scores is to compare the top 25% to the bottom 25% while eliminating the middle 50% of the programs that fall within this range. Some states have used the top 50% and the bottom 50% as the sorting schema. In making comparisons utilizing the various data sorting models, the 25%/25% model always performed the best.

Two, in most studies that involved both program compliance data and program quality data, Key indicator and Risk Assessment Rules correlated significantly with ERS and CLASS scores. This is an important finding because one of the reasons for doing abbreviated monitoring inspections such as Key Indicator or Risk Assessment Reviews is to establish a balance between program compliance as measured via licensing and program quality as measured via ERS or CLASS usually within a QRIS protocol.

Three, there appears to be little to no significance to the number of rules within a Key Indicator Tool. It performs well with fewer than 10 rules as well as in cases where there are more rules present in the tool. It is more important what the Key Indicator Rules are than the number. However, with that said, obviously the more rules one has the less efficient the process becomes because you are reviewing more rules than may be warranted.

I thought it important to share these three short thoughts with you regarding the trends I have noticed over the past 40+ years of doing research into Key Indicator, Risk Assessment and Differential Monitoring within human services and early care and education regulatory compliance, licensing, program quality and professional development systems.

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Regulatory Compliance Decision Making Using the Key Indicator Methodology

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The purpose of this paper is to provide guidance to regulatory administrators in decision making regarding the Key Indicator Methodology. A 2 x 2 Matrix will be used to demonstrate the key decisions that need to be made with various caveats and examples. Key Indicator Systems for Licensing have been used in states for many years now; this paper hopefully will provide a framework for the difficult decision making when it comes to moving from an abbreviated monitoring inspection to a full comprehensive monitoring inspection.

The basic *KIS Decision Making 2 x 2 Matrix* to be employed throughout this paper is the following format:

KIS Decision Making Matrix	**Overall Low Compliance (L)**	**Overall High Compliance (H)**
KI Rule is Not In-Compliance (NC)	L+NC = Desirable	H+NC = False Negative
KI Rule is In-Compliance (C)	L+C = False Positive	H+C = Desirable

The above 2 x 2 Matrix provides the basic decision making in a licensing key indicator system. We want to find a rule that statistically predicts overall high compliance when it is in-compliance (H+C) and when it is not in-compliance it predicts overall low compliance with all rules (L+NC). Less favorable are rules that are in- compliance but predict overall low compliance (L+C) and worse of all is when the rule is not in-compliance but statistically predicts high overall compliance with all rules (H+NC). In the KIS Decision Making Matrix we should always find (L+NC) + (H+C) > (H+NC) + (L+C). (H+NC) should be zero (0) or as close to zero. Both (L+NC) and (H+C) should be the highest populated cells in the matrix. Generally because of the nature of rules, (L+C) is usually well populated as well which is not necessarily a bad thing but it can lead to inefficiencies which will help to defeat the purpose of the Key Indicator Methodology's cost efficiency.

Examples of the above may help to make this more straightforward for decision making:

Example 1:

KIS Decision Making Matrix	**Overall Low Compliance**	**Overall High Compliance**
KI Rule is Not In-Compliance	1	0
KI Rule is In-Compliance	59	44

Example 1 demonstrates a non-significant relationship within the KIS Decision Making Matrix where there is no relationship between this particular rule and its ability to predict overall regulatory compliance. It would not be recommended as a Key Indicator Rule.

Example 2:

KIS Decision Making Matrix	**Overall Low Compliance**	**Overall High Compliance**
KI Rule is Not In-Compliance	5	0
KI Rule is In-Compliance	55	44

In Example 2, this rule reaches significance (phi = .19; $p < .05$) in being able to predict overall compliance because now when the rule is not In-Compliance it predicts overall low compliance, and continues when the rule is In-Compliance to predict overall high compliance. However, there are still a number of False Positives (n = 55) where when the Rule is In-Compliance it is predicting overall low compliance. This can lead to monitoring additional programs that don't necessarily need additional in-depth monitoring which goes counter to the purposed of the Key Indicator Methodology. But this is a fact of life with licensing data, most programs are in compliance with the majority of their rules.

Example 3:

KIS Decision Making Matrix	**Overall Low Compliance**	**Overall High Compliance**
KI Rule is Not In-Compliance	21	3
KI Rule is In-Compliance	39	41

Example 3 provides an interesting dilemma in that it is more highly significant (phi = .33; $p < .001$) than Example 2, but introduces three 3 False Negatives where the program is in the High Compliance Group but the specific Rule is Not In-Compliance.

Example 4:

KIS Decision Making Matrix	**Overall Low Compliance**	**Overall High Compliance**
KI Rule is Not In-Compliance	60	0
KI Rule is In-Compliance	0	44

Example 4 provides a perfect relationship (phi = 1.00; $p < .0001$) between the KI rule and the overall compliance level. The KI rule is always not In-Compliance with the overall low compliance programs and always In-Compliance with the overall high compliance programs. The problem is this KI rule just does not exist in the licensing field. It does in the program quality (QRIS) arena utilizing ERS data but not in licensing and regulatory administration.

So where does this leave the regulatory licensing administrator in making decisions with the Key Indicator Methodology. When should one move from an abbreviated monitoring inspection to a full monitoring inspection? When should a rule become a key indicator? The answer depends on the tolerance for false negatives I feel. Any licensing administrator must be concerned when the false negatives are beginning to populate the matrix.

The purpose of this paper is to help regulatory licensing administrators decide when to use Key Indicators/Abbreviated Inspections and when to use Comprehensive Monitoring Inspections. In the past, phi coefficients were used as the determining factor without regard for False Negatives. Based on the past 40 years of research into Key indicators' Methodology, I think a closer look at the Matrix data is warranted rather than a strict threshold determination using phi coefficients.

Based upon this need to look more closely at the False Positives and Negatives, it is highly recommended to use a top 25% and a bottom 25% for the High and Low Compliance Groups rather than a 50%/50% separation. The 25%/25% breakout is a much better model. And lastly, once the Key Indicators (KI) are in place, run a correlation and scatterplot of the KI with the Comprehensive Instrument (CI) to see how the data display. A very high correlation (r = .75+) should be observed in the comparison of KI and CI. This is the last step in order to validate the use of the KI as an efficient and effective abbreviated instrument that statistically predicts overall compliance via the Comprehensive Instrument (CI).

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The Basic Tenets of an Effective and Efficient Monitoring System for Regulatory Compliance

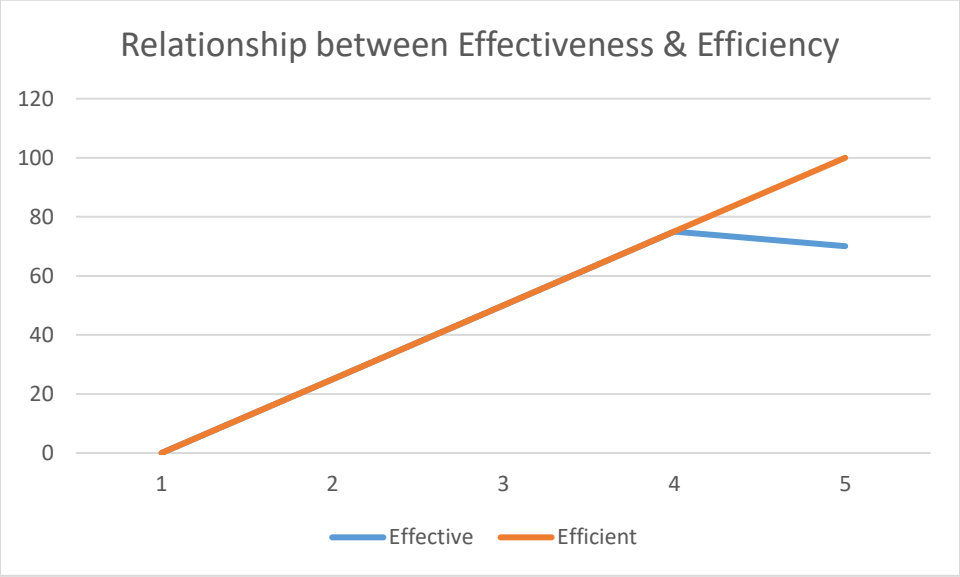
Richard Fiene, PhD.

April 2018

This paper will describe the essential elements of building an effective and efficient monitoring system for regulatory compliance. There is a balancing of both effectiveness and efficiency that need to be conjoined as state administrators think about how best to monitor human services. A basic assumption of this paper is that effectiveness and efficiency are tied together in a deep structure and are not two independent values.

The prevailing theory of the relationship of effective and efficient monitoring systems is based upon a linear relationship between the two. The best monitoring system is one that is both effective and efficient. And this is true up to a point. An alternate theory or paradigm for thinking about this relationship is that as one moves up the efficiency scale, effectiveness will begin to slide as we move from highly efficient systems to the most efficient systems where very few rules are reviewed (see the below figure 1 for a depiction of this relationship). Within the human service regulatory administration and compliance field is the move to more abbreviated inspections in which fewer rules are reviewed. These abbreviated inspections are based upon risk assessment and key indicator methodologies.

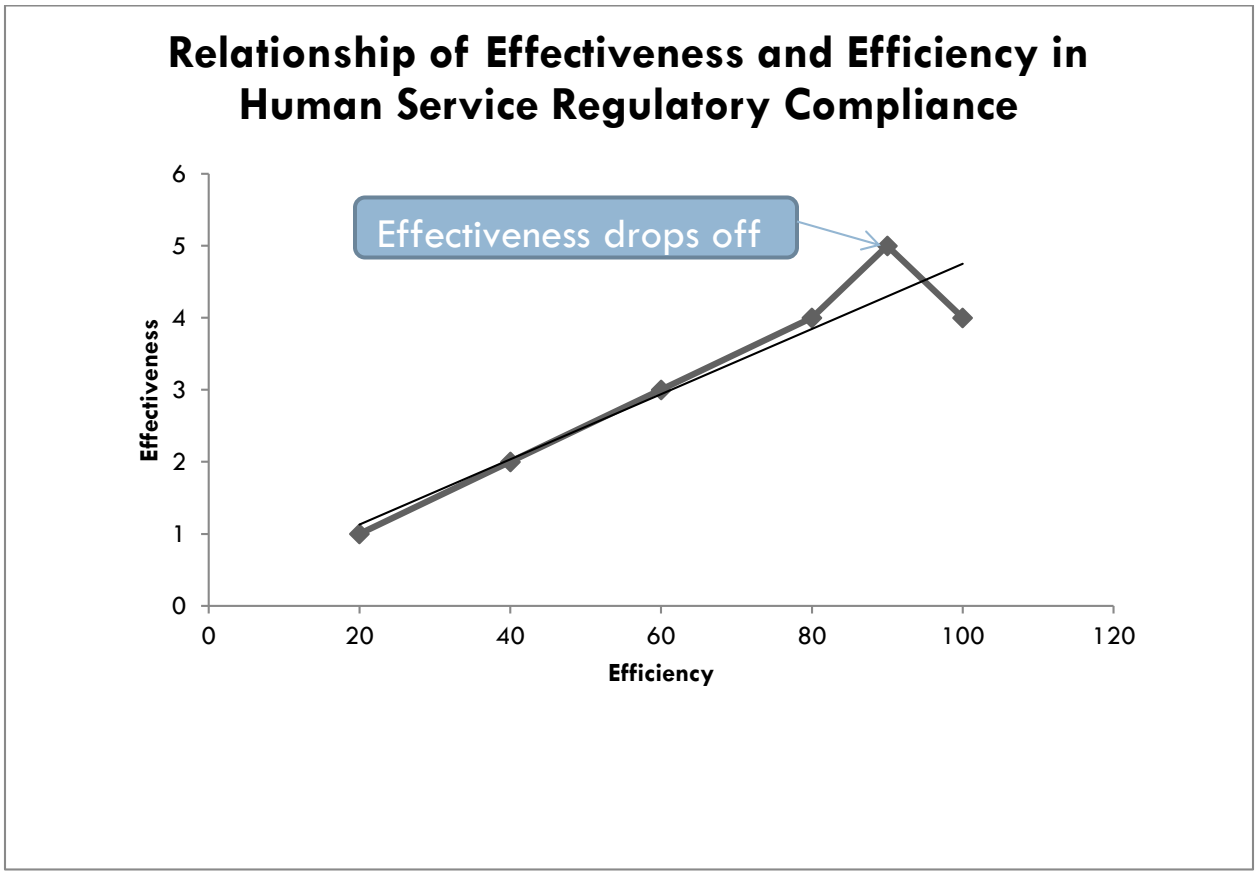
Figure 1 – The NonLinear Relationship between Effectiveness and Efficiency



As state administrators of regulatory compliance systems there is the need to find the “sweet spot”, the balance between having both an effective and efficient monitoring system. Finding the correct number

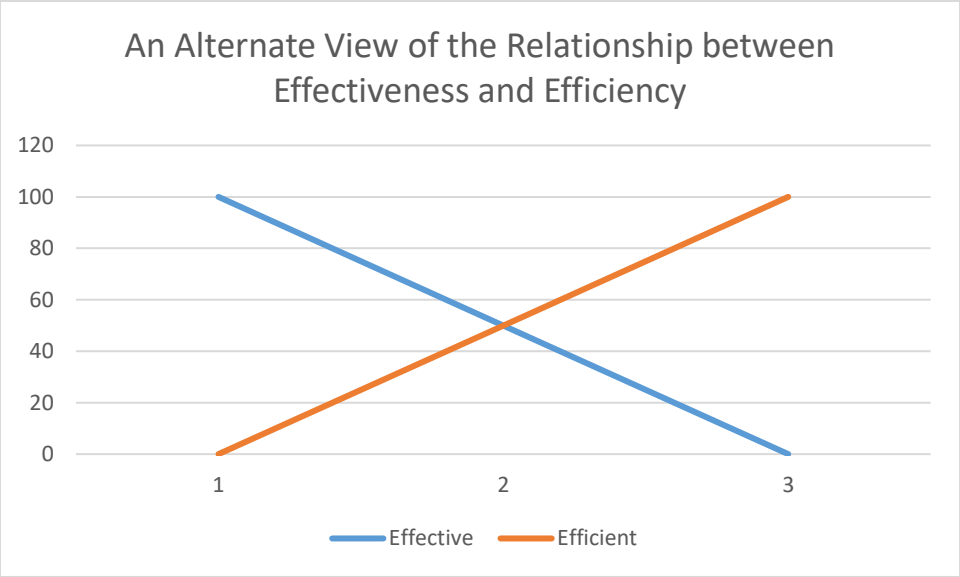
of rules to monitor is a difficult decision. Especially in the present focus on de-regulation. We need to be careful to "not throw the baby out with the bath water", so to speak, in public policy terms. The above relationship as depicted in Figure 1 has been discovered in repeated studies by the author in all forms of human service licensing and regulatory administration and compliance studies, such as child residential , adult residential, and early care and education (see Figure 2 below).

Figure 2 – Study Results from Several Human Service Regulatory Administration & Compliance Studies



An alternate way of looking at effectiveness and efficiency is depicted in Figure 3 below. In this depiction, both values are placed within the same graphic in order to determine how they interact with each other. The key to this Intersection of Effectiveness and Efficiency is determining the balance point where one can find the most effective and efficient monitoring system. For state administrators responsible for regulatory administration, it is always difficult to find the correct balance of oversight in a system that is operated with limited resources. There is always pressure to make the most out of limited resources. But with that said, everyone needs to be certain that in the quest for efficiencies we do not really begin to jeopardize effectiveness.

Figure 3 – The Intersection of Effectiveness and Efficiency



The purpose of this paper is to demonstrate an alternate paradigm in thinking about the relationship between effectiveness and efficiency as it relates to program monitoring within a regulatory administration and compliance setting. What are some of the key tenets in deciding upon a monitoring system that will meet the needs of all clients who are receiving various human services without jeopardizing their overall health and safety which is the essence of effectiveness.

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The Implications in Regulatory Compliance Measurement When Moving from Nominal to Ordinal Scaling

Richard Fiene, Ph.D.

May 2018

The purpose of this paper is to provide an alternate paradigm for regulatory compliance measurement in moving from a nominal to an ordinal scale measurement strategy. Regulatory compliance measurement is dominated by a nominal scale measurement system in which rules are either in compliance or out of compliance. There are no gradients for measurement within the present licensing measurement paradigm. It is very absolute. Either a rule is in full compliance to the letter of the law or the essence of the regulation or it is not. An alternate paradigm borrowing from accreditation and other program quality systems is to establish an ordinal scale measurement system which takes various gradients of compliance into account. With this alternate paradigm, it offers an opportunity to begin to introduce a quality element into the measurement schema. It also allows to take into consideration both risk and prevalence data which are important in rank ordering specific rules.

So how would this look from a licensing decision making vantage point. Presently, in licensing measurement, licensing decisions are made at the rule level in which each rule is either in or out of compliance in the prevailing paradigm. Licensing summaries with corrective actions are generated from the regulatory compliance review. It is a nominal measurement system being based upon Yes/No responses. The alternate measurement paradigm I am suggesting in this paper is one that is more ordinal in nature where we expand the Yes/No response to include gradients of the particular rule. In the next paragraph, I provide an example of a rule that could be measured in moving from a nominal to ordinal scale measurement schema.

Rather than only measuring a rule in an all or none fashion, this alternate paradigm provides a more relative mode of measurement at an ordinal level. For example, with a professional development or training rule in a particular state which requires, let's say, 6 hours of training for each staff person. Rather than having this only be 6 hours in compliance and anything less than this is out of compliance, let's have this rule be on a relative gradient in which any amount of hours above the 6 hours falls into a program quality level and anything less than the 6 hours falls out of compliance but at a more severe level depending on how far below the 6 hours and how many staff do not meet the requirement (prevalence). Also throw in a specific weight which adds in a risk factor and we have a paradigm that is more relative rather than absolute in nature.

From a math modeling perspective, the 1 or 0 format for a Yes or No response becomes -2, -1, 0, +1, +2 format. This is more similar to what is used in accreditation systems where 0 equals Compliance and -1 and -2 equals various levels of Non-Compliance in terms of severity and/or prevalence. The +1 and +2 levels equal value added to the Compliance level by introducing a Quality Indicator. This new formatting builds upon the compliance vs non-compliance dichotomy (C/NC) but now adds a quality indicator (QI) element. By adding this quality element, we may be able to eliminate or at least lessen the non-linear relationship between regulatory compliance with rules and program quality scores as measured by the

Environmental Rating Scales (ERS) and CLASS which is the essence of the Theory of Regulatory Compliance (TRC). It could potentially make this a more linear relationship by not having the data as skewed as it has been in the past.

By employing this alternate paradigm, it is a first demonstration of the use of the Key Indicator Methodology in both licensing and quality domains. The Key Indicator Methodology has been utilized a great deal in licensing but in few instances in the program quality domain. For example, over the past five years, I have worked with approximately 10 states in designing Licensing Key Indicators but only one state with Quality Key Indicators from their QRIS – Quality Rating and Improvement System. This new paradigm would combine the use in both. It also takes advantage of the full ECPQI2M – Early Childhood Program Quality Improvement and Indicator Model by blending regulatory compliance with program quality standards.

A major implication in moving from a nominal to an ordinal regulatory compliance measurement system is that it presents the possibility of combining licensing and quality rating and improvement systems into one system via the Key Indicator Methodology. By having licensing indicators and now quality indicators that could be both measured by licensing inspectors, there would be no need to have two separate systems but rather one that applies to everyone and becomes mandated rather than voluntary. It could help to balance both effectiveness and efficiency by only including those standards and rules that statistically predict regulatory compliance and quality and balancing risk assessment by adding high risk rules.

I will continue to develop this scale measurement paradigm shift in future papers but wanted to get this idea out to the regulatory administration field for consideration and debate. This will be a very controversial proposal since state regulatory agencies have spent a great deal of resources on developing free standing QRIS which build upon licensing systems. This alternate paradigm builds off my Theory of Regulatory Compliance's key element of relative vs absolute measurement and linear vs non-linear relationships. Look for additional information about this on my website RIKI Institute Blog - https://rikinstitute.com/blog/.

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Correlations

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Correlations

		KIT10	KIT13IN	KI8	ECERSPRK	ECERSPS
KIT10	Pearson Correlation	1	.275**	-.764**	.220	.300**
	Sig. (2-tailed)		.005	.000	.133	.002
	N	104	104	104	48	102
KIT13IN	Pearson Correlation	.275**	1	-.302**	.240	.111
	Sig. (2-tailed)	.005		.002	.101	.267
	N	104	104	104	48	102
KI8	Pearson Correlation	-.764**	-.302**	1	-.330*	-.307**
	Sig. (2-tailed)	.000	.002		.022	.002
	N	104	104	104	48	102
ECERSPRK	Pearson Correlation	.220	.240	-.330*	1	.549**
	Sig. (2-tailed)	.133	.101	.022		.000
	N	48	48	48	48	47
ECERSPS	Pearson Correlation	.300**	.111	-.307**	.549**	1
	Sig. (2-tailed)	.002	.267	.002	.000	
	N	102	102	102	47	102

Correlations

		ITERS	LSTOTAL	LSHILOW	WDCNC	WDCORE
KIT10	Pearson Correlation	.263*	-.784**	.673**	.389**	-.487**
	Sig. (2-tailed)	.012	.000	.000	.000	.000
	N	91	104	104	104	104
KIT13IN	Pearson Correlation	.131	-.264**	.248*	.139	-.184
	Sig. (2-tailed)	.214	.007	.011	.160	.061
	N	91	104	104	104	104
KI8	Pearson Correlation	-.237*	.860**	-.606**	-.501**	.601**
	Sig. (2-tailed)	.024	.000	.000	.000	.000
	N	91	104	104	104	104
ECERSPRK	Pearson Correlation	.641**	-.369**	.238	.328*	-.528**
	Sig. (2-tailed)	.000	.010	.104	.023	.000
	N	45	48	48	48	48
ECERSPS	Pearson Correlation	.702**	-.292**	.234*	.225*	-.339**
	Sig. (2-tailed)	.000	.003	.018	.023	.000
	N	90	102	102	102	102

Correlations

		KIT10	KIT13IN	KI8	ECERSPRK	ECERSPS
ITERS	Pearson Correlation	.263*	.131	-.237*	.641**	.702**
	Sig. (2-tailed)	.012	.214	.024	.000	.000
	N	91	91	91	45	90
LSTOTAL	Pearson Correlation	-.784**	-.264**	.860**	-.369**	-.292**
	Sig. (2-tailed)	.000	.007	.000	.010	.003
	N	104	104	104	48	102
LSHILOW	Pearson Correlation	.673**	.248*	-.606**	.238	.234*
	Sig. (2-tailed)	.000	.011	.000	.104	.018
	N	104	104	104	48	102
WDCNC	Pearson Correlation	.389**	.139	-.501**	.328*	.225*
	Sig. (2-tailed)	.000	.160	.000	.023	.023
	N	104	104	104	48	102
WDCORE	Pearson Correlation	-.487**	-.184	.601**	-.528**	-.339**
	Sig. (2-tailed)	.000	.061	.000	.000	.000
	N	104	104	104	48	102

Correlations

		ITERS	LSTOTAL	LSHILOW	WDCNC	WDCORE
ITERS	Pearson Correlation	1	-.305**	.364**	.278**	-.364**
	Sig. (2-tailed)		.003	.000	.008	.000
	N	91	91	91	91	91
LSTOTAL	Pearson Correlation	-.305**	1	-.675**	-.551**	.691**
	Sig. (2-tailed)	.003		.000	.000	.000
	N	91	104	104	104	104
LSHILOW	Pearson Correlation	.364**	-.675**	1	.405**	-.513**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	91	104	104	104	104
WDCNC	Pearson Correlation	.278**	-.551**	.405**	1	-.756**
	Sig. (2-tailed)	.008	.000	.000		.000
	N	91	104	104	104	104
WDCORE	Pearson Correlation	-.364**	.691**	-.513**	-.756**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	91	104	104	104	104

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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Correlations

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Correlations

		CI Total Violations	CLASS ES	CLASS CO	CLASS IS
CI Total Violations	Pearson Correlation	1	-.219**	-.192**	-.199**
	Sig. (2-tailed)		.000	.000	.000
	N	422	384	384	384
CLASS ES	Pearson Correlation	-.219**	1	.830**	.514**
	Sig. (2-tailed)	.000		.000	.000
	N	384	384	384	384
CLASS CO	Pearson Correlation	-.192**	.830**	1	.459**
	Sig. (2-tailed)	.000	.000		.000
	N	384	384	384	384
CLASS IS	Pearson Correlation	-.199**	.514**	.459**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	384	384	384	384
HILO GROUPING	Pearson Correlation	.717**	-.176**	-.178**	-.196**
	Sig. (2-tailed)	.000	.001	.000	.000
	N	422	384	384	384
KEY INDICATORS 14	Pearson Correlation	.858**	-.229**	-.192**	-.171**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	422	384	384	384
TCO FULL SUB LOW	Pearson Correlation	.697**	-.183**	-.186**	-.147**
	Sig. (2-tailed)	.000	.000	.000	.004
	N	422	384	384	384
HILO TOP 25 BOTTOM 25	Pearson Correlation	.806**	-.246**	-.246**	-.226**
	Sig. (2-tailed)	.000	.001	.001	.002
	N	198	178	178	178
100 VS EVERYONE ELSE	Pearson Correlation	.441**	-.132**	-.135**	-.036
	Sig. (2-tailed)	.000	.010	.008	.480
	N	422	384	384	384

Correlations

		HILO GROUPING	KEY INDICATORS 14	TCO FULL SUB LOW
CI Total Violations	Pearson Correlation	.717**	.858**	.697**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CLASS ES	Pearson Correlation	-.176**	-.229**	-.183**
	Sig. (2-tailed)	.001	.000	.000
	N	384	384	384
CLASS CO	Pearson Correlation	-.178**	-.192**	-.186**
	Sig. (2-tailed)	.000	.000	.000
	N	384	384	384
CLASS IS	Pearson Correlation	-.196**	-.171**	-.147**
	Sig. (2-tailed)	.000	.001	.004
	N	384	384	384
HILO GROUPING	Pearson Correlation	1	.634**	.885**
	Sig. (2-tailed)		.000	.000
	N	422	422	422
KEY INDICATORS 14	Pearson Correlation	.634**	1	.617**
	Sig. (2-tailed)	.000		.000
	N	422	422	422
TCO FULL SUB LOW	Pearson Correlation	.885**	.617**	1
	Sig. (2-tailed)	.000	.000	
	N	422	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	1.000**	.722**	1.000**
	Sig. (2-tailed)	.000	.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	.449**	.393**	.814**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		HILO TOP 25 BOTTOM 25	100 VS EVERYONE ELSE	CDE AVERAGE
CI Total Violations	Pearson Correlation	.806**	.441**	.509**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
CLASS ES	Pearson Correlation	-.246**	-.132**	-.153**
	Sig. (2-tailed)	.001	.010	.003
	N	178	384	384
CLASS CO	Pearson Correlation	-.246**	-.135**	-.158**
	Sig. (2-tailed)	.001	.008	.002
	N	178	384	384
CLASS IS	Pearson Correlation	-.226**	-.036	-.123*
	Sig. (2-tailed)	.002	.480	.015
	N	178	384	384
HILO GROUPING	Pearson Correlation	1.000**	.449**	.300**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
KEY INDICATORS 14	Pearson Correlation	.722**	.393**	.379**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
TCO FULL SUB LOW	Pearson Correlation	1.000**	.814**	.290**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	1	1.000**	.368**
	Sig. (2-tailed)		.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	1.000**	1	.182**
	Sig. (2-tailed)	.000		.000
	N	198	422	422

Correlations

		CHS AVERAGE	ERSEA AVERAGE	FCE AVERAGE
CI Total Violations	Pearson Correlation	.700**	.491**	.295**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CLASS ES	Pearson Correlation	-.226**	-.152**	-.127*
	Sig. (2-tailed)	.000	.003	.013
	N	384	384	384
CLASS CO	Pearson Correlation	-.209**	-.110*	-.125*
	Sig. (2-tailed)	.000	.031	.014
	N	384	384	384
CLASS IS	Pearson Correlation	-.179**	-.118*	-.098
	Sig. (2-tailed)	.000	.021	.054
	N	384	384	384
HILO GROUPING	Pearson Correlation	.517**	.365**	.244**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 14	Pearson Correlation	.746**	.397**	.280**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
TCO FULL SUB LOW	Pearson Correlation	.501**	.328**	.229**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	.646**	.396**	.299**
	Sig. (2-tailed)	.000	.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	.316**	.174**	.135**
	Sig. (2-tailed)	.000	.000	.006
	N	422	422	422

Correlations

		FIS AVERAGE	GOV AVERAGE	MANAGEMENT SYSTEMS AVERAGE
CI Total Violations	Pearson Correlation	.502**	.568**	.783**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CLASS ES	Pearson Correlation	-.047	-.110*	-.167**
	Sig. (2-tailed)	.363	.030	.001
	N	384	384	384
CLASS CO	Pearson Correlation	-.058	-.043	-.151**
	Sig. (2-tailed)	.255	.405	.003
	N	384	384	384
CLASS IS	Pearson Correlation	-.063	-.127*	-.107*
	Sig. (2-tailed)	.216	.013	.036
	N	384	384	384
HILO GROUPING	Pearson Correlation	.402**	.335**	.598**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 14	Pearson Correlation	.199**	.615**	.806**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
TCO FULL SUB LOW	Pearson Correlation	.407**	.318**	.584**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	.461**	.382**	.687**
	Sig. (2-tailed)	.000	.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	.280**	.192**	.374**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		PROGRAM TYPE HS, EHS, HS/EHS	CLASS TOTAL OF THREE SCALES	CDE TOTAL VIOLATIONS
CI Total Violations	Pearson Correlation	-.083	-.238**	.509**
	Sig. (2-tailed)	.089	.000	.000
	N	422	384	422
CLASS ES	Pearson Correlation	.044	.856**	-.153**
	Sig. (2-tailed)	.391	.000	.003
	N	384	384	384
CLASS CO	Pearson Correlation	.041	.844**	-.158**
	Sig. (2-tailed)	.429	.000	.002
	N	384	384	384
CLASS IS	Pearson Correlation	.022	.846**	-.123*
	Sig. (2-tailed)	.666	.000	.015
	N	384	384	384
HILO GROUPING	Pearson Correlation	-.050	-.219**	.300**
	Sig. (2-tailed)	.302	.000	.000
	N	422	384	422
KEY INDICATORS 14	Pearson Correlation	-.086	-.225**	.379**
	Sig. (2-tailed)	.077	.000	.000
	N	422	384	422
TCO FULL SUB LOW	Pearson Correlation	-.064	-.198**	.290**
	Sig. (2-tailed)	.191	.000	.000
	N	422	384	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	-.136	-.274**	.368**
	Sig. (2-tailed)	.056	.000	.000
	N	198	178	198
100 VS EVERYONE ELSE	Pearson Correlation	-.059	-.106*	.182**
	Sig. (2-tailed)	.223	.039	.000
	N	422	384	422

Correlations

		CHS TOTAL VIOLATIONS	ERSEA TOTAL VIOLATIONS	FCE TOTAL VIOLATIONS
CI Total Violations	Pearson Correlation	.700**	.491**	.295**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CLASS ES	Pearson Correlation	-.226**	-.152**	-.127*
	Sig. (2-tailed)	.000	.003	.013
	N	384	384	384
CLASS CO	Pearson Correlation	-.209**	-.110*	-.125*
	Sig. (2-tailed)	.000	.031	.014
	N	384	384	384
CLASS IS	Pearson Correlation	-.179**	-.118*	-.098
	Sig. (2-tailed)	.000	.021	.054
	N	384	384	384
HILO GROUPING	Pearson Correlation	.517**	.365**	.244**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 14	Pearson Correlation	.746**	.397**	.280**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
TCO FULL SUB LOW	Pearson Correlation	.501**	.328**	.229**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	.646**	.396**	.299**
	Sig. (2-tailed)	.000	.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	.316**	.174**	.135**
	Sig. (2-tailed)	.000	.000	.006
	N	422	422	422

Correlations

		FISCAL TOTAL VIOLATIONS	GOVERNANCE TOTAL VIOLATIONS	MANAGEMENT SYSTEM TOTAL VIOLATIONS
CI Total Violations	Pearson Correlation	.502**	.568**	.783**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CLASS ES	Pearson Correlation	-.047	-.110*	-.167**
	Sig. (2-tailed)	.363	.030	.001
	N	384	384	384
CLASS CO	Pearson Correlation	-.058	-.043	-.151**
	Sig. (2-tailed)	.255	.405	.003
	N	384	384	384
CLASS IS	Pearson Correlation	-.063	-.127*	-.107*
	Sig. (2-tailed)	.216	.013	.036
	N	384	384	384
HILO GROUPING	Pearson Correlation	.402**	.335**	.598**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 14	Pearson Correlation	.199**	.615**	.806**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
TCO FULL SUB LOW	Pearson Correlation	.407**	.318**	.584**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	.461**	.382**	.687**
	Sig. (2-tailed)	.000	.000	.000
	N	198	198	198
100 VS EVERYONE ELSE	Pearson Correlation	.280**	.192**	.374**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		KEY INDICATORS 9 FINAL	FIVE LEVELS OF COMPLIANCE	WITHOUT EHS
CI Total Violations	Pearson Correlation	.768**	.860**	-.085
	Sig. (2-tailed)	.000	.000	.093
	N	422	422	389
CLASS ES	Pearson Correlation	-.274**	-.214**	.044
	Sig. (2-tailed)	.000	.000	.391
	N	384	384	384
CLASS CO	Pearson Correlation	-.250**	-.198**	.041
	Sig. (2-tailed)	.000	.000	.429
	N	384	384	384
CLASS IS	Pearson Correlation	-.173**	-.173**	.022
	Sig. (2-tailed)	.001	.001	.666
	N	384	384	384
HILO GROUPING	Pearson Correlation	.610**	.859**	-.053
	Sig. (2-tailed)	.000	.000	.301
	N	422	422	389
KEY INDICATORS 14	Pearson Correlation	.926**	.736**	-.090
	Sig. (2-tailed)	.000	.000	.077
	N	422	422	389
TCO FULL SUB LOW	Pearson Correlation	.601**	.946**	-.067
	Sig. (2-tailed)	.000	.000	.187
	N	422	422	389
HILO TOP 25 BOTTOM 25	Pearson Correlation	.716**	.946**	-.143
	Sig. (2-tailed)	.000	.000	.056
	N	198	198	180
100 VS EVERYONE ELSE	Pearson Correlation	.392**	.741**	-.063
	Sig. (2-tailed)	.000	.000	.216
	N	422	422	389

Correlations

		KI8
CI Total Violations	Pearson Correlation	.761**
	Sig. (2-tailed)	.000
	N	422
CLASS ES	Pearson Correlation	-.266**
	Sig. (2-tailed)	.000
	N	384
CLASS CO	Pearson Correlation	-.239**
	Sig. (2-tailed)	.000
	N	384
CLASS IS	Pearson Correlation	-.167**
	Sig. (2-tailed)	.001
	N	384
HILO GROUPING	Pearson Correlation	.609**
	Sig. (2-tailed)	.000
	N	422
KEY INDICATORS 14	Pearson Correlation	.919**
	Sig. (2-tailed)	.000
	N	422
TCO FULL SUB LOW	Pearson Correlation	.603**
	Sig. (2-tailed)	.000
	N	422
HILO TOP 25 BOTTOM 25	Pearson Correlation	.719**
	Sig. (2-tailed)	.000
	N	198
100 VS EVERYONE ELSE	Pearson Correlation	.396**
	Sig. (2-tailed)	.000
	N	422

Correlations

		CI Total Violations	CLASS ES	CLASS CO	CLASS IS
CDE AVERAGE	Pearson Correlation	.509**	-.153**	-.158**	-.123*
	Sig. (2-tailed)	.000	.003	.002	.015
	N	422	384	384	384
CHS AVERAGE	Pearson Correlation	.700**	-.226**	-.209**	-.179**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	422	384	384	384
ERSEA AVERAGE	Pearson Correlation	.491**	-.152**	-.110*	-.118*
	Sig. (2-tailed)	.000	.003	.031	.021
	N	422	384	384	384
FCE AVERAGE	Pearson Correlation	.295**	-.127*	-.125*	-.098
	Sig. (2-tailed)	.000	.013	.014	.054
	N	422	384	384	384
FIS AVERAGE	Pearson Correlation	.502**	-.047	-.058	-.063
	Sig. (2-tailed)	.000	.363	.255	.216
	N	422	384	384	384
GOV AVERAGE	Pearson Correlation	.568**	-.110*	-.043	-.127*
	Sig. (2-tailed)	.000	.030	.405	.013
	N	422	384	384	384
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.783**	-.167**	-.151**	-.107*
	Sig. (2-tailed)	.000	.001	.003	.036
	N	422	384	384	384
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.083	.044	.041	.022
	Sig. (2-tailed)	.089	.391	.429	.666
	N	422	384	384	384
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.238**	.856**	.844**	.846**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	384	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.509**	-.153**	-.158**	-.123*
	Sig. (2-tailed)	.000	.003	.002	.015
	N	422	384	384	384

Correlations

		HILO GROUPING	KEY INDICATORS 14	TCO FULL SUB LOW
CDE AVERAGE	Pearson Correlation	.300**	.379**	.290**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
CHS AVERAGE	Pearson Correlation	.517**	.746**	.501**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
ERSEA AVERAGE	Pearson Correlation	.365**	.397**	.328**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FCE AVERAGE	Pearson Correlation	.244**	.280**	.229**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FIS AVERAGE	Pearson Correlation	.402**	.199**	.407**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
GOV AVERAGE	Pearson Correlation	.335**	.615**	.318**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.598**	.806**	.584**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.050	-.086	-.064
	Sig. (2-tailed)	.302	.077	.191
	N	422	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.219**	-.225**	-.198**
	Sig. (2-tailed)	.000	.000	.000
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.300**	.379**	.290**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		HILO TOP 25 BOTTOM 25	100 VS EVERYONE ELSE	CDE AVERAGE
CDE AVERAGE	Pearson Correlation	.368**	.182**	1
	Sig. (2-tailed)	.000	.000	
	N	198	422	422
CHS AVERAGE	Pearson Correlation	.646**	.316**	.326**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
ERSEA AVERAGE	Pearson Correlation	.396**	.174**	.263**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
FCE AVERAGE	Pearson Correlation	.299**	.135**	.063
	Sig. (2-tailed)	.000	.006	.193
	N	198	422	422
FIS AVERAGE	Pearson Correlation	.461**	.280**	.138**
	Sig. (2-tailed)	.000	.000	.005
	N	198	422	422
GOV AVERAGE	Pearson Correlation	.382**	.192**	.129**
	Sig. (2-tailed)	.000	.000	.008
	N	198	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.687**	.374**	.328**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.136	-.059	-.006
	Sig. (2-tailed)	.056	.223	.897
	N	198	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.274**	-.106*	-.167**
	Sig. (2-tailed)	.000	.039	.001
	N	178	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.368**	.182**	1.000**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422

Correlations

		CHS AVERAGE	ERSEA AVERAGE	FCE AVERAGE
CDE AVERAGE	Pearson Correlation	.326**	.263**	.063
	Sig. (2-tailed)	.000	.000	.193
	N	422	422	422
CHS AVERAGE	Pearson Correlation	1	.290**	.182**
	Sig. (2-tailed)		.000	.000
	N	422	422	422
ERSEA AVERAGE	Pearson Correlation	.290**	1	.147**
	Sig. (2-tailed)	.000		.003
	N	422	422	422
FCE AVERAGE	Pearson Correlation	.182**	.147**	1
	Sig. (2-tailed)	.000	.003	
	N	422	422	422
FIS AVERAGE	Pearson Correlation	.085	.102*	.010
	Sig. (2-tailed)	.083	.036	.830
	N	422	422	422
GOV AVERAGE	Pearson Correlation	.249**	.268**	.171**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.509**	.384**	.225**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	.007	-.112*	.031
	Sig. (2-tailed)	.888	.022	.531
	N	422	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.235**	-.145**	-.134**
	Sig. (2-tailed)	.000	.004	.009
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.326**	.263**	.063
	Sig. (2-tailed)	.000	.000	.193
	N	422	422	422

Correlations

		FIS AVERAGE	GOV AVERAGE	MANAGEMENT SYSTEMS AVERAGE
CDE AVERAGE	Pearson Correlation	.138**	.129**	.328**
	Sig. (2-tailed)	.005	.008	.000
	N	422	422	422
CHS AVERAGE	Pearson Correlation	.085	.249**	.509**
	Sig. (2-tailed)	.083	.000	.000
	N	422	422	422
ERSEA AVERAGE	Pearson Correlation	.102*	.268**	.384**
	Sig. (2-tailed)	.036	.000	.000
	N	422	422	422
FCE AVERAGE	Pearson Correlation	.010	.171**	.225**
	Sig. (2-tailed)	.830	.000	.000
	N	422	422	422
FIS AVERAGE	Pearson Correlation	1	.125*	.226**
	Sig. (2-tailed)		.010	.000
	N	422	422	422
GOV AVERAGE	Pearson Correlation	.125*	1	.384**
	Sig. (2-tailed)	.010		.000
	N	422	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.226**	.384**	1
	Sig. (2-tailed)	.000	.000	
	N	422	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.001	-.124*	-.111*
	Sig. (2-tailed)	.991	.010	.023
	N	422	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.068	-.114*	-.159**
	Sig. (2-tailed)	.182	.026	.002
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.138**	.129**	.328**
	Sig. (2-tailed)	.005	.008	.000
	N	422	422	422

Correlations

		PROGRAM TYPE HS, EHS, HS/EHS	CLASS TOTAL OF THREE SCALES	CDE TOTAL VIOLATIONS
CDE AVERAGE	Pearson Correlation	-.006	-.167**	1.000**
	Sig. (2-tailed)	.897	.001	.000
	N	422	384	422
CHS AVERAGE	Pearson Correlation	.007	-.235**	.326**
	Sig. (2-tailed)	.888	.000	.000
	N	422	384	422
ERSEA AVERAGE	Pearson Correlation	-.112*	-.145**	.263**
	Sig. (2-tailed)	.022	.004	.000
	N	422	384	422
FCE AVERAGE	Pearson Correlation	.031	-.134**	.063
	Sig. (2-tailed)	.531	.009	.193
	N	422	384	422
FIS AVERAGE	Pearson Correlation	-.001	-.068	.138**
	Sig. (2-tailed)	.991	.182	.005
	N	422	384	422
GOV AVERAGE	Pearson Correlation	-.124*	-.114*	.129**
	Sig. (2-tailed)	.010	.026	.008
	N	422	384	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	-.111*	-.159**	.328**
	Sig. (2-tailed)	.023	.002	.000
	N	422	384	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	1	.039	-.006
	Sig. (2-tailed)		.448	.897
	N	422	384	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	.039	1	-.167**
	Sig. (2-tailed)	.448		.001
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	-.006	-.167**	1
	Sig. (2-tailed)	.897	.001	
	N	422	384	422

Correlations

		CHS TOTAL VIOLATIONS	ERSEA TOTAL VIOLATIONS	FCE TOTAL VIOLATIONS
CDE AVERAGE	Pearson Correlation	.326**	.263**	.063
	Sig. (2-tailed)	.000	.000	.193
	N	422	422	422
CHS AVERAGE	Pearson Correlation	1.000**	.290**	.182**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
ERSEA AVERAGE	Pearson Correlation	.290**	1.000**	.147**
	Sig. (2-tailed)	.000	.000	.003
	N	422	422	422
FCE AVERAGE	Pearson Correlation	.182**	.147**	1.000**
	Sig. (2-tailed)	.000	.003	.000
	N	422	422	422
FIS AVERAGE	Pearson Correlation	.085	.102*	.010
	Sig. (2-tailed)	.083	.036	.830
	N	422	422	422
GOV AVERAGE	Pearson Correlation	.249**	.268**	.171**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.509**	.384**	.225**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	.007	-.112*	.031
	Sig. (2-tailed)	.888	.022	.531
	N	422	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.235**	-.145**	-.134**
	Sig. (2-tailed)	.000	.004	.009
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.326**	.263**	.063
	Sig. (2-tailed)	.000	.000	.193
	N	422	422	422

Correlations

		FISCAL TOTAL VIOLATIONS	GOVERNANCE TOTAL VIOLATIONS	MANAGEMENT SYSTEM TOTAL VIOLATIONS
CDE AVERAGE	Pearson Correlation	.138**	.129**	.328**
	Sig. (2-tailed)	.005	.008	.000
	N	422	422	422
CHS AVERAGE	Pearson Correlation	.085	.249**	.509**
	Sig. (2-tailed)	.083	.000	.000
	N	422	422	422
ERSEA AVERAGE	Pearson Correlation	.102*	.268**	.384**
	Sig. (2-tailed)	.036	.000	.000
	N	422	422	422
FCE AVERAGE	Pearson Correlation	.010	.171**	.225**
	Sig. (2-tailed)	.830	.000	.000
	N	422	422	422
FIS AVERAGE	Pearson Correlation	1.000**	.125*	.226**
	Sig. (2-tailed)	.000	.010	.000
	N	422	422	422
GOV AVERAGE	Pearson Correlation	.125*	1.000**	.384**
	Sig. (2-tailed)	.010	.000	.000
	N	422	422	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.226**	.384**	1.000**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.001	-.124*	-.111*
	Sig. (2-tailed)	.991	.010	.023
	N	422	422	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.068	-.114*	-.159**
	Sig. (2-tailed)	.182	.026	.002
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.138**	.129**	.328**
	Sig. (2-tailed)	.005	.008	.000
	N	422	422	422

Correlations

		KEY INDICATORS 9 FINAL	FIVE LEVELS OF COMPLIANCE	WITHOUT EHS
CDE AVERAGE	Pearson Correlation	.414**	.414**	-.007
	Sig. (2-tailed)	.000	.000	.897
	N	422	422	389
CHS AVERAGE	Pearson Correlation	.807**	.594**	.007
	Sig. (2-tailed)	.000	.000	.891
	N	422	422	389
ERSEA AVERAGE	Pearson Correlation	.334**	.415**	-.117*
	Sig. (2-tailed)	.000	.000	.021
	N	422	422	389
FCE AVERAGE	Pearson Correlation	.268**	.264**	.031
	Sig. (2-tailed)	.000	.000	.545
	N	422	422	389
FIS AVERAGE	Pearson Correlation	.141**	.475**	.000
	Sig. (2-tailed)	.004	.000	.993
	N	422	422	389
GOV AVERAGE	Pearson Correlation	.388**	.435**	-.128*
	Sig. (2-tailed)	.000	.000	.012
	N	422	422	389
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.720**	.704**	-.115*
	Sig. (2-tailed)	.000	.000	.023
	N	422	422	389
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.056	-.075	1.000**
	Sig. (2-tailed)	.253	.123	.000
	N	422	422	389
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.260**	-.225**	.039
	Sig. (2-tailed)	.000	.000	.448
	N	384	384	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.414**	.414**	-.007
	Sig. (2-tailed)	.000	.000	.897
	N	422	422	389

Correlations

		KI8
CDE AVERAGE	Pearson Correlation	.422**
	Sig. (2-tailed)	.000
	N	422
CHS AVERAGE	Pearson Correlation	.805**
	Sig. (2-tailed)	.000
	N	422
ERSEA AVERAGE	Pearson Correlation	.334**
	Sig. (2-tailed)	.000
	N	422
FCE AVERAGE	Pearson Correlation	.219**
	Sig. (2-tailed)	.000
	N	422
FIS AVERAGE	Pearson Correlation	.142**
	Sig. (2-tailed)	.003
	N	422
GOV AVERAGE	Pearson Correlation	.373**
	Sig. (2-tailed)	.000
	N	422
MANAGEMENT SYSTEMS AVERAGE	Pearson Correlation	.722**
	Sig. (2-tailed)	.000
	N	422
PROGRAM TYPE HS, EHS, HS/EHS	Pearson Correlation	-.054
	Sig. (2-tailed)	.272
	N	422
CLASS TOTAL OF THREE SCALES	Pearson Correlation	-.251**
	Sig. (2-tailed)	.000
	N	384
CDE TOTAL VIOLATIONS	Pearson Correlation	.422**
	Sig. (2-tailed)	.000
	N	422

Correlations

		CI Total Violations	CLASS ES	CLASS CO	CLASS IS
CHS TOTAL VIOLATIONS	Pearson Correlation	.700**	-.226**	-.209**	-.179**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	422	384	384	384
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.491**	-.152**	-.110*	-.118*
	Sig. (2-tailed)	.000	.003	.031	.021
	N	422	384	384	384
FCE TOTAL VIOLATIONS	Pearson Correlation	.295**	-.127*	-.125*	-.098
	Sig. (2-tailed)	.000	.013	.014	.054
	N	422	384	384	384
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.502**	-.047	-.058	-.063
	Sig. (2-tailed)	.000	.363	.255	.216
	N	422	384	384	384
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.568**	-.110*	-.043	-.127*
	Sig. (2-tailed)	.000	.030	.405	.013
	N	422	384	384	384
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.783**	-.167**	-.151**	-.107*
	Sig. (2-tailed)	.000	.001	.003	.036
	N	422	384	384	384
KEY INDICATORS 9 FINAL	Pearson Correlation	.768**	-.274**	-.250**	-.173**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	422	384	384	384
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.860**	-.214**	-.198**	-.173**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	422	384	384	384
WITHOUT EHS	Pearson Correlation	-.085	.044	.041	.022
	Sig. (2-tailed)	.093	.391	.429	.666
	N	389	384	384	384
KI8	Pearson Correlation	.761**	-.266**	-.239**	-.167**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	422	384	384	384

Correlations

		HILO GROUPING	KEY INDICATORS 14	TCO FULL SUB LOW
CHS TOTAL VIOLATIONS	Pearson Correlation	.517**	.746**	.501**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.365**	.397**	.328**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.244**	.280**	.229**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.402**	.199**	.407**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.335**	.615**	.318**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.598**	.806**	.584**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.610**	.926**	.601**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.859**	.736**	.946**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
WITHOUT EHS	Pearson Correlation	-.053	-.090	-.067
	Sig. (2-tailed)	.301	.077	.187
	N	389	389	389
KI8	Pearson Correlation	.609**	.919**	.603**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		HILO TOP 25 BOTTOM 25	100 VS EVERYONE ELSE	CDE AVERAGE
CHS TOTAL VIOLATIONS	Pearson Correlation	.646**	.316**	.326**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.396**	.174**	.263**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.299**	.135**	.063
	Sig. (2-tailed)	.000	.006	.193
	N	198	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.461**	.280**	.138**
	Sig. (2-tailed)	.000	.000	.005
	N	198	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.382**	.192**	.129**
	Sig. (2-tailed)	.000	.000	.008
	N	198	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.687**	.374**	.328**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.716**	.392**	.414**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.946**	.741**	.414**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422
WITHOUT EHS	Pearson Correlation	-.143	-.063	-.007
	Sig. (2-tailed)	.056	.216	.897
	N	180	389	389
KI8	Pearson Correlation	.719**	.396**	.422**
	Sig. (2-tailed)	.000	.000	.000
	N	198	422	422

Correlations

		CHS AVERAGE	ERSEA AVERAGE	FCE AVERAGE
CHS TOTAL VIOLATIONS	Pearson Correlation	1.000**	.290**	.182**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.290**	1.000**	.147**
	Sig. (2-tailed)	.000	.000	.003
	N	422	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.182**	.147**	1.000**
	Sig. (2-tailed)	.000	.003	.000
	N	422	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.085	.102*	.010
	Sig. (2-tailed)	.083	.036	.830
	N	422	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.249**	.268**	.171**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.509**	.384**	.225**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.807**	.334**	.268**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.594**	.415**	.264**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
WITHOUT EHS	Pearson Correlation	.007	-.117*	.031
	Sig. (2-tailed)	.891	.021	.545
	N	389	389	389
KI8	Pearson Correlation	.805**	.334**	.219**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		FIS AVERAGE	GOV AVERAGE	MANAGEMENT SYSTEMS AVERAGE
CHS TOTAL VIOLATIONS	Pearson Correlation	.085	.249**	.509**
	Sig. (2-tailed)	.083	.000	.000
	N	422	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.102*	.268**	.384**
	Sig. (2-tailed)	.036	.000	.000
	N	422	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.010	.171**	.225**
	Sig. (2-tailed)	.830	.000	.000
	N	422	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	1.000**	.125*	.226**
	Sig. (2-tailed)	.000	.010	.000
	N	422	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.125*	1.000**	.384**
	Sig. (2-tailed)	.010	.000	.000
	N	422	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.226**	.384**	1.000**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.141**	.388**	.720**
	Sig. (2-tailed)	.004	.000	.000
	N	422	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.475**	.435**	.704**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
WITHOUT EHS	Pearson Correlation	.000	-.128*	-.115*
	Sig. (2-tailed)	.993	.012	.023
	N	389	389	389
KI8	Pearson Correlation	.142**	.373**	.722**
	Sig. (2-tailed)	.003	.000	.000
	N	422	422	422

Correlations

		PROGRAM TYPE HS, EHS, HS/EHS	CLASS TOTAL OF THREE SCALES	CDE TOTAL VIOLATIONS
CHS TOTAL VIOLATIONS	Pearson Correlation	.007	-.235**	.326**
	Sig. (2-tailed)	.888	.000	.000
	N	422	384	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	-.112*	-.145**	.263**
	Sig. (2-tailed)	.022	.004	.000
	N	422	384	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.031	-.134**	.063
	Sig. (2-tailed)	.531	.009	.193
	N	422	384	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	-.001	-.068	.138**
	Sig. (2-tailed)	.991	.182	.005
	N	422	384	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	-.124*	-.114*	.129**
	Sig. (2-tailed)	.010	.026	.008
	N	422	384	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	-.111*	-.159**	.328**
	Sig. (2-tailed)	.023	.002	.000
	N	422	384	422
KEY INDICATORS 9 FINAL	Pearson Correlation	-.056	-.260**	.414**
	Sig. (2-tailed)	.253	.000	.000
	N	422	384	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	-.075	-.225**	.414**
	Sig. (2-tailed)	.123	.000	.000
	N	422	384	422
WITHOUT EHS	Pearson Correlation	1.000**	.039	-.007
	Sig. (2-tailed)	.000	.448	.897
	N	389	384	389
KI8	Pearson Correlation	-.054	-.251**	.422**
	Sig. (2-tailed)	.272	.000	.000
	N	422	384	422

Correlations

		CHS TOTAL VIOLATIONS	ERSEA TOTAL VIOLATIONS	FCE TOTAL VIOLATIONS
CHS TOTAL VIOLATIONS	Pearson Correlation	1	.290**	.182**
	Sig. (2-tailed)		.000	.000
	N	422	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.290**	1	.147**
	Sig. (2-tailed)	.000		.003
	N	422	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.182**	.147**	1
	Sig. (2-tailed)	.000	.003	
	N	422	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.085	.102*	.010
	Sig. (2-tailed)	.083	.036	.830
	N	422	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.249**	.268**	.171**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.509**	.384**	.225**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.807**	.334**	.268**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.594**	.415**	.264**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
WITHOUT EHS	Pearson Correlation	.007	-.117*	.031
	Sig. (2-tailed)	.891	.021	.545
	N	389	389	389
KI8	Pearson Correlation	.805**	.334**	.219**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422

Correlations

		FISCAL TOTAL VIOLATIONS	GOVERNANCE TOTAL VIOLATIONS	MANAGEMENT SYSTEM TOTAL VIOLATIONS
CHS TOTAL VIOLATIONS	Pearson Correlation	.085	.249**	.509**
	Sig. (2-tailed)	.083	.000	.000
	N	422	422	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.102*	.268**	.384**
	Sig. (2-tailed)	.036	.000	.000
	N	422	422	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.010	.171**	.225**
	Sig. (2-tailed)	.830	.000	.000
	N	422	422	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	1	.125*	.226**
	Sig. (2-tailed)		.010	.000
	N	422	422	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.125*	1	.384**
	Sig. (2-tailed)	.010		.000
	N	422	422	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.226**	.384**	1
	Sig. (2-tailed)	.000	.000	
	N	422	422	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.141**	.388**	.720**
	Sig. (2-tailed)	.004	.000	.000
	N	422	422	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.475**	.435**	.704**
	Sig. (2-tailed)	.000	.000	.000
	N	422	422	422
WITHOUT EHS	Pearson Correlation	.000	-.128*	-.115*
	Sig. (2-tailed)	.993	.012	.023
	N	389	389	389
KI8	Pearson Correlation	.142**	.373**	.722**
	Sig. (2-tailed)	.003	.000	.000
	N	422	422	422

Correlations

		KEY INDICATORS 9 FINAL	FIVE LEVELS OF COMPLIANCE	WITHOUT EHS
CHS TOTAL VIOLATIONS	Pearson Correlation	.807**	.594**	.007
	Sig. (2-tailed)	.000	.000	.891
	N	422	422	389
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.334**	.415**	-.117*
	Sig. (2-tailed)	.000	.000	.021
	N	422	422	389
FCE TOTAL VIOLATIONS	Pearson Correlation	.268**	.264**	.031
	Sig. (2-tailed)	.000	.000	.545
	N	422	422	389
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.141**	.475**	.000
	Sig. (2-tailed)	.004	.000	.993
	N	422	422	389
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.388**	.435**	-.128*
	Sig. (2-tailed)	.000	.000	.012
	N	422	422	389
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.720**	.704**	-.115*
	Sig. (2-tailed)	.000	.000	.023
	N	422	422	389
KEY INDICATORS 9 FINAL	Pearson Correlation	1	.687**	-.058
	Sig. (2-tailed)		.000	.252
	N	422	422	389
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.687**	1	-.079
	Sig. (2-tailed)	.000		.122
	N	422	422	389
WITHOUT EHS	Pearson Correlation	-.058	-.079	1
	Sig. (2-tailed)	.252	.122	
	N	389	389	389
KI8	Pearson Correlation	.994**	.684**	-.056
	Sig. (2-tailed)	.000	.000	.270
	N	422	422	389

Correlations

		KI8
CHS TOTAL VIOLATIONS	Pearson Correlation	.805**
	Sig. (2-tailed)	.000
	N	422
ERSEA TOTAL VIOLATIONS	Pearson Correlation	.334**
	Sig. (2-tailed)	.000
	N	422
FCE TOTAL VIOLATIONS	Pearson Correlation	.219**
	Sig. (2-tailed)	.000
	N	422
FISCAL TOTAL VIOLATIONS	Pearson Correlation	.142**
	Sig. (2-tailed)	.003
	N	422
GOVERNANCE TOTAL VIOLATIONS	Pearson Correlation	.373**
	Sig. (2-tailed)	.000
	N	422
MANAGEMENT SYSTEM TOTAL VIOLATIONS	Pearson Correlation	.722**
	Sig. (2-tailed)	.000
	N	422
KEY INDICATORS 9 FINAL	Pearson Correlation	.994**
	Sig. (2-tailed)	.000
	N	422
FIVE LEVELS OF COMPLIANCE	Pearson Correlation	.684**
	Sig. (2-tailed)	.000
	N	422
WITHOUT EHS	Pearson Correlation	-.056
	Sig. (2-tailed)	.270
	N	389
KI8	Pearson Correlation	1
	Sig. (2-tailed)	
	N	422

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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Correlations

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H TEST3 QRIS NC1-3 ALL.sav
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Correlations

		NC1	nC2	NC3	QRIS	NC13
NC1	Pearson Correlation	1	.501**	.399**	-.037	.811**
	Sig. (2-tailed)		.000	.000	.606	.000
	N	199	199	199	199	199
nC2	Pearson Correlation	.501**	1	.304**	-.024	.816**
	Sig. (2-tailed)	.000		.000	.740	.000
	N	199	199	199	199	199
NC3	Pearson Correlation	.399**	.304**	1	-.023	.693**
	Sig. (2-tailed)	.000	.000		.752	.000
	N	199	199	199	199	199
QRIS	Pearson Correlation	-.037	-.024	-.023	1	-.035
	Sig. (2-tailed)	.606	.740	.752		.620
	N	199	199	199	199	199
NC13	Pearson Correlation	.811**	.816**	.693**	-.035	1
	Sig. (2-tailed)	.000	.000	.000	.620	
	N	199	199	199	199	199

**. Correlation is significant at the 0.01 level (2-tailed).

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