

The Theory of Regulatory Compliance (TRC) and the Unified Theory of Regulatory Compliance (UTRC): Comparisons and Explanations

Richard Fiene, PhD

Penn State Edna Bennett Pierce Prevention Research Center

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INTRODUCTION

Building off the research presented previously dealing with the theory of regulatory compliance (Fiene, 2019) and its extensions into assessing program quality (Fiene, 2022), this research abstract will unify those papers in demonstrating how the theory provides a building block approach to program monitoring (Fiene, 2026) that mitigates many of the measurement problems identified in the original theory (Fiene, 2019).

The theory of regulatory compliance identified several measurement issues in regulatory compliance data, such as lack of variance, a ceiling effect/diminishing returns, and data being skewed. But it also identified several opportunities and innovations, such as differential monitoring, licensing compliance key indicators, risk assessment rules, all rules not being created nor administered equally, the importance of substantial compliance in making licensing decisions, and weighting of rules. The unified theory of regulatory compliance built off of these issues and opportunities to create an enhanced and more integrated program monitoring system combining structural and process quality into a new regulatory framework (Fiene, 2026) which has led to the development of a CCEE Heart Monitor App and enhanced Contact Hour metric equation (CH+) (Fiene, 2026). It also led more specifically to the development of the uncertainty-certainty matrix for licensing decision making, relative weighting, integrated monitoring, child care early education heart monitor for measuring structural and process quality within a single platform, regulatory compliance gravity curve, risk-compliance interaction model, regulatory compliance scale, integrated regulatory framework, and a psychology of compliance utilizing prospect theory (Kahneman & Tversky, 1979).

This abstract will provide a side-by-side comparison in moving from the original theory of regulatory compliance (TRC) to this more unified and comprehensive theory (UTRC) which fully incorporates and integrates program quality into it. Rather than discussing program quality as an add-on, it will demonstrate how it is an integral extension to regulatory compliance and how and why process quality and structural quality need to be part of the same equation (Fiene, 2026). Hopefully, this abstract will provide regulatory scientists and licensing researchers with a blueprint for conducting future human care licensing and regulatory science research studies to determine the adequacy of specific public policies (See Table 1 which follows).

Table 1: Theory of Regulatory Compliance (TRC) x Unified Theory of Regulatory Compliance (UTRC) Comparison Matrix

Key Elements	TRC Paradigm	UTRC Paradigm
Core Role	Gatekeeper	Enabler
Data Distribution	Skewed w/Little Variance	More Normally Distributed
Weighting/Risk Assessment	Equal Interval (1-9)	Relative/Fibonacci (1-100)
Data Variance	Very Little – Need for Dichotomization	Increased Variance
Key Indicators	Compliance Focused	Quality Focused
Level of Measurement	Nominal Measurement	Ordinal Measurement
Program Monitoring	Differential Monitoring	Integrated Monitoring
Decision Making	Locally Determined	Uncertainty-Certainty Matrix
Psychology of Compliance	Risk or Prediction	Risk-Compliance Interaction Model
Linear vs Non-Linear Modeling	Ceiling Effect / Diminishing Returns Identified / Substantial Compliance	Regulatory Compliance Gravity Curve: Finding the Right Rules
App Development	Not Addressed	CCEE Heart Monitor
Dimensionality	1 Dimension / Point in Time / Static	1D, 2D, 3 Dimensions / Dynamic
Assessment Framework	ECPQIM / DMLMA Model	Integrated Regulatory Framework
Program Quality	Structural Quality Emphasis	Process + Structural Quality Balance

DETAILED ELEMENTAL ANALYSES

Data Distribution.

The theory of regulatory compliance (TRC) clearly depicted the lack of variance in regulatory compliance data. Regulatory compliance data are severely skewed which makes it extremely difficult to distinguish between the high performers and the mediocre performers. However, with that said, it is easy to distinguish between the high performers and the really low performing programs since the tail of the curve still extends out but luckily there are not many programs that are at this low level of performance. With the unified theory of regulatory compliance (UTRC), the data distribution does become more normally distributed but not totally so. Data are still skewed a bit but it is easier now to distinguish between the top performers and the mediocre performers because of the infusion/integration of program quality into the overall assessment equation.

Weighting.

The theory of regulatory compliance (TRC) initially did not have weighting built into the assessment paradigm but it became clear after these initial studies that some sort of weighting of rules was necessary since rules were not created equally nor administered equally. An equal interval weighting on a Likert scale (1-9: 1 = low risk and 9 = high risk to the client) was developed and implemented for this purpose. With the unified theory (UTRC), weighting moved from an equal interval to a more relative weighting based upon the Fibonacci sequence in which the scaling was dramatically changed (1-100: 1 = low risk; 100 = high risk to the client) which tremendously helped with increasing the variance in the weights and acted as a better discriminator amongst weighted rules, especially the most heavily weighted rules.

Variance.

It was clear from the theory of regulatory compliance (TRC) research studies that there was little variance in regulatory compliance and statistical adjustments would need to be made. Dichotomization of data was introduced in order to significantly spread out the differences between the high and low regulatory groupings. This adjustment worked wonders in making the data analyses more meaningful. With large data bases which are available today and not 50 years ago, a 5/90/5 distribution can be utilized which significantly cuts out false positives and negatives and increases the predictive values within the data set. With the introduction of the unified theory (UTRC), these distribution protocols can be relaxed a bit especially when dealing with smaller data sets and because of the normalization of the data distribution.

Key Indicators.

With the theory of regulatory compliance (TRC), key indicators focused on compliance and only compliance. This was a significant departure from the standard paradigm of program monitoring that had a one-size-fits-all approach. With the advent of the key indicator methodology, differential monitoring was possible which changed the whole paradigm when it came to doing assessments and inspections of facilities where abbreviated and targeted reviews of selected rules could be utilized rather than the one-size-fits-all comprehensive reviews of all rules. With the unified theory (UTRC), the key indicator methodology was utilized to identify quality key indicators drawn from Quality Rating and Improvement Systems (QRIS), professional development systems, and generic quality tool assessments such as the Environmental Rating Scales (ERS). This provided a balance between structural and process quality which was a game changer once the two key indicator approaches were unified in the Child Care Early Education Heart Monitor App (CCEEHM) which will be addressed in a later element more fully.

Measurement.

Nominal measurement is utilized in the theory of regulatory compliance (TRC) where rules are either in or out of compliance and rules are dealt with as frequency data. With the unified theory (UTRC), rules are either in or out of compliance although they could be put on an ordinal scale showing full compliance, partial compliance or non-compliance; but the data are aggregated on a Likert scale (1-7 where 7 = full compliance; 5 = substantial compliance; 3 = mediocre compliance; and 1 = low compliance). This is a real difference and

one that has been demonstrated to be significantly more effective in making licensing decisions than just counting up non-compliances. These measurement techniques are made more effective and efficient by employing a weighting of rules.

Monitoring.

Differential monitoring was introduced when the theory of regulatory compliance (TRC) was proposed and continues to be utilized by a significant number of licensing agencies in the United States and Canada. With the unified theory (UTRC), differential monitoring has morphed into an integrated monitoring approach which has quality elements infused and integrated into the regulatory compliance assessment system and equation (Fiene, 2026). This new system is just being introduced as this abstract is being written so there is a good deal of pilot testing that needs to occur before it can be adopted on a larger scale by licensing agencies.

Decision Making.

When the theory of regulatory compliance (TRC) was introduced it did not come along with a formalized decision-making protocol or rubric. This methodology needed to wait until the unified theory of regulatory compliance (UTRC) was introduced and an uncertainty-certainty matrix (UCM) was formally introduced (Fiene, 2025) for licensing decision making. Prior to its introduction, licensing decision making had really a local focus and was not standardized. UCM is attempting to introduce more standardization into this process in order to reduce bias and false positives and negatives in licensing decision making. As with many of the innovations introduced with the unified theory of regulatory compliance this will need additional pilot testing to make sure it is working as it should and producing the outcomes as projected.

Psychology of Compliance.

This element came out of the unified theory (UTRC) and was not present in the original theory (TRC). Prospect theory (Kahneman & Tversky, 1979) has played a crucial role in developing compliance psychology by being able to build a risk-compliance interaction model based upon the twin pillars of prospect theory dealing with loss aversion and certainty. These two concepts within prospect theory play an important role in regulatory compliance as well when it comes to how providers of service and regulators approach their respective decision making. Regulators are driven by not making false positive and negative decisions regarding regulatory compliance while providers of service are extremely keen to make certain that their license is not revoked nor reduced to a provisional status. In TRC, risk and prediction were more independent of each other.

Linear vs Non-Linear Modeling of Data.

The regulatory compliance gravity curve builds off of the risk-compliance interaction model in depicting how the data actually plays out once regulatory compliance is determined based upon risk. Again, this was not present with the original theory of regulatory compliance but has been proposed with the unified theory. To date, high non-compliance is generally present in low-risk rules while high compliance is present in high-risk rules. The mid-level risk rules are generally in a mid-level compliance pattern and are the best predictor

or key indicator rules based upon previous studies (Fiene, 2026). The other discovery was that the relationship between regulatory compliance and program quality was non-linear rather than linear which led to a ceiling and/or diminishing returns effect which demonstrated the importance of substantial compliance. That is also the case with the regulatory compliance gravity curve. There is a natural sweet spot related to substantial or mid-level regulatory compliance.

App Development.

With the introduction of the unified theory of regulatory compliance (UTRC), a new App was developed to enhance its use, the CCEEHM: Child Care Early Education Heart Monitor (Fiene, 2026) where it was now possible to assess both structural and process quality within a single platform. Previously with the theory of regulatory compliance, it was still separate approaches to assessing structural and process quality. However, once accessed, it was possible to analyze the relationship between quality and regulatory compliance which led to the ceiling/diminishing returns effect and the importance of substantial compliance (Fiene, 2019, 2022) and the essence of the theory of regulatory compliance.

Dimensionality.

This is an interesting element to regulatory compliance that has been kicking around the licensing research literature field for 40 years. When we think of measuring regulatory compliance with rules, it is a point in time measurement. It is a snapshot of where a program is at specific to a point in time. In building off this single dimensional assessment, a contact hour metric was proposed to measure adult-child ratios over time and move the single dimensional assessment to a two-dimensional assessment taking time into consideration. Most recently this assessment protocol was enhanced to a three-dimensional assessment (CH+) incorporating program quality elements into the original contact hour metric (CH) (Fiene, 2026). It will be interesting to see how well this concept of dimensionality plays out with staff-to-child ratios in infusing program quality into the equation; but it will also be interesting to see if there are other rules that could benefit from a dimensionality look.

Assessment Framework.

All of the above techniques and methods are being packaged within a new integrated regulatory framework that it is hoped will be embraced by licensing and policy administrators, regulatory scientists, and licensing researchers to see if this new framework really does help to improve the licensing decision making and enforcement strategies. At present, this new integrated regulatory framework needs validation studies to determine its overall effectiveness and efficiency and its efficacy as an improvement over the present program monitoring paradigm of differential monitoring. With the theory of regulatory compliance, the Early Childhood Program Quality Improvement and Indicator (ECPQIM) model was used as an overarching framework which combined licensing, quality initiatives, differential monitoring, risk assessment and key indicators into a Differential Monitoring Logic Model and Algorithm (DMLMA).

Program Quality.

As mentioned in several of the above key elements, the original theory of regulatory compliance (TRC) focused on structural quality while the unified theory's (UTRC) emphasis is more of a balancing of structural and process quality (Fiene, 2019, 2022, 2026). In moving the early care and education field forward, this movement to infusing quality into the overall assessment equation is a step in the right direction that many advocates have been attempting to get put on the radar screen which will provide balance between deficit/risk/do no harm and strength based/performance/do good models. This abstract attempts to introduce through the theories of regulatory compliance a way of moving in that direction taking advantage of licensing assessor expertise while minimizing potential bias.

CONCLUSION

This abstract has depicted the differences between the original theory of regulatory compliance (TRC) and the newer unified theory of regulatory compliance (UTRC) which builds off of the foundational studies comparing regulatory compliance and program quality (Fiene, 2019, 2022). It helps us to move from a gatekeeper role to one more of an enabler role; opening up a rather closed system. The unified theory enhances those beginnings by introducing several new concepts that build off of the licensing decision making uncertainty-certainty matrix (Fiene, 2025), and its intersection with prospect theory borrowed from behavioral economics (Kahneman & Tversky, 1979). This intersection led to a psychology of compliance which was operationalized into the risk-compliance interaction model and the regulatory compliance gravity curve as well as an enhanced contact hour metric assessment (Fiene, 2026).

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Richard Fiene, PhD

Research Psychologist & Regulatory Scientist

Research Institute for Key Indicators Data Laboratory

Penn State Edna Bennett Pierce Prevention Research Center

Email: rfiene@rikoinstitute.com