Research Institute for Key Indicators Data Lab

RIKI - Research Institute for Key Indicators Data Laboratory

To Bloggers Everywhere

Contents

RIKI & NARA PARTNERSHIP

Saturday, February 20, 2016

For all future research and development for differential monitoring, risk assessment and key indicator methodologies please go to the NARA – National Association for Regulatory Administration.

Dr Fiene pictured with Tara Orlowski, NARA President and Marcus Williams, NARA Executive Director

Please see the Press Release on the partnership between NARA and RIKI.
(NARA press release on NARA-RIKI partnership).

Also see the ***NARA Key Indicator Systems Brochure which describes the key elements of Dr Fiene's methodology.***

Please go t0 the following webpage ***http://RIKInstitute.com/blog*** **for a continuation and expansion of this blog. The several posts below highlight selected** ***CFOCB – Caring for Our Children Basics*** **standards for the interested reader.**

Latest RIKI Research related to ECPQIM and DMLMA

Tuesday, October 18, 2016

Here are the two versions of the ***RIKI Book of Readings for ECPQIM/DMLMA***:

1) Main Reports and Papers, 486 pages (15 MB). This research monograph/book of readings/reports/papers contains the basic reports written during 2012-2016 related to ECPQIM/DMLMA now in its 4th edition.

2) Main Reports, Papers, Technical Notes, Tools, & Powerpoint Slides, 694 pages (21 MB). This compilation contains all the basic reports but also contains the powerpoint slides, technical notes, tools, etc. written during 2012-16 related to ECPQIM/DMLMA.

Here are some other videos, webinars, powerpoint presentations, and other resources about program monitoring and ECPQIM:

- Differential Monitoring, Risk Assessment, Key Indicators 2013 – 2015 (https://www.youtube.com/watch?v=lR5qRryeCg4&feature=youtu.be)
- OCC: The Benefits of Monitoring 2015 (https://www.youtube.com/watch?v=sKHfrBwssyQ&feature=em-share_video_user)

- STAM/OCC/ACF Plenary Session on Monitoring 2014 (http://www.acf.hhs.gov/programs/occ/resource/stam-2013-monitoring-plenary-highlights-part-i)
- Penn State Prevention Research Center Seminar Presentation on ECPQIM 2015 (http://live.libraries.psu.edu/Mediasite/Play/2ba6f8729ca54a09aa997963c591508c1d?catalog=8376d4b2-4dd1-457e-a3bf-e4cf9163feda)
- STAM 2015 Raising the Bar on Quality (https://childcareta.acf.hhs.gov/resource/july-stam-meeting#Raising-Quality-Bar)
- CCDF 2015 Webinar Video Protecting Health & Safety of Children in Child Care (https://www.youtube.com/watch?v=tcm8jPiFQq8)
- Caring for Our Children Basics 2015 (http://www.acf.hhs.gov/occ/resource/caring-for-our-children-basics-webinar)

Here is a webinar (***Resources and Tools for Revising and Aligning Early Childhood Program Standards*** that was held on Wednesday, January 11, 2017) conducted by the **National Center for Early Childhood Quality Assurance** on health and safety resources that will be useful to state administrators:

- Health Safety Resources Webinar Slides
- Webinar Recording

I have had the distinct honor to become a member of the **National Center for Early Childhood Quality Assurance's Licensing Expert Panel** that they have convened. It is with great pleasure that I serve on this panel with 25 other national experts (Licensing Expert Panel Members) representing all the various components of an early care and education quality continuum.

- Monitoring Powerpoint

I have also had the distinct honor to be asked again to serve as a member of the **National Head Start Association's Task Force on Monitoring (NHSA Monitoring Task Force)**. Here is the NHSA Task Force Report on Monitoring released back in 2012 (NHSA 2012 MTF Report), we will be updating it with the new CCDBG/CCDF requirements related to monitoring.

- NHSA MTF Recommendations
- NHSA Updated MTF Report 2017

The **Federal Departments of Health and Human Services and the the United States Department of Agriculture** recently put forth a joint monitoring statement which will have a significant impact on the overall quality of child care. Here is the overall link to the website and the specific joint policy statement:

- The HHS/USDA Joint Monitoring Statement Website
- The Joint Policy Statement

The RIKI Blog has posts regarding ***Caring for Our Children Basics*** **(CFOCB)** and its potential impact on the ECE field. I am taking a look at a few of the standards and why they are so important to the ECE field in establishing a firm foundation to ECE health and safety for all children. I have geared the blog for parents to think about their own ECE arrangements and if it meets the standards as presented in CFOCB. I am really curious to see what I hear back from parents. (#6/7/9/11/12/13)

We can't underestimate the importance of CFOCB. I have said this in other venues that CFOCB is as important as Developmentally Appropriate Practices when it was first published. CFOCB is a game changer for the USA in that now we (ECE) actually have nationally voluntary standards for all ECE programs. This is a significant event.

Having been a state administrator, policy researcher and analyst for 25 years, I would suggest that present state administrators think about using CFOCB as the basis of any revision to their own state ECE rules/regulations as their core set of rules, and for their basic health & safety standards in the state's QRIS. CFOCB is based upon a solid research base developed over the past five decades. It is one of the best examples of combining the Key Indicator and Risk Assessment methodologies together.

My plan is to think through creative ways that CFOCB can be used by state agencies in helping to improve ECE in their respective jurisdictions. Those of you who know me, know that I have been at this for over 40 years in figuring out the best ways of improving ECE quality for all children. CFOCB is a first step for us. Hopefully, with QRIS we can build upon this solid foundation with CFOCB to really tackle ECE quality.

Please go to RIKInstitute.com to get the latest posts. All the posts are from *Caring for Our Children Basics* and *Caring for Our Children 3rd Edition*.

Here is a new resource from the ***National Center on Early Childhood Quality Assurance*** regarding new Briefs on Health and Safety Topics (***NCECQA Health & Safety Briefs***). I highly recommend these to parents and providers who are seeking child care or are working in child care. This is just another excellent example of the high quality, thoughtful resources being produced by the National Center.

Based upon 40+ years of research into identifying key licensing and quality indicators it is possible to distill this list of key indicators into three areas/factors when related to rules/regulations/standards. These three rule/regulatory/standard areas are the following:

1. **A highly qualified ECE Director with a BA/MA in ECE.**
2. **Highly qualified ECE Teachers with AA/BA in ECE.**
3. **Parent Engagement similar to what we see in Head Start programs.**

These three areas have appeared consistently in key indicator lists when analyzing state licensing regulations and QRIS standards. In an ECE world with very limited resources, I would recommend that we focus our program monitoring on these three areas in order to efficiently and effectively increase the overall quality of ECE programs.

Another question asked many times is if there is a specific rule/regulation that stands out from all the key indicators, in other words, it shows up on every state's list or most state's lists. There is a rule/regulation that fits this threshold and it has to do with **children's immunizations.** For what ever reason, compliance with this rule/regulation appears to have the ability to consistently discriminate between the highly compliant ECE providers and those that have lower compliance. This is an area that needs additional exploration to determine in greater detail why this occurs. Presently a MCHB research project being undertaken by the Pennsylvania Chapter of the American Academy of Pediatrics ECELS (ECELS Report) will help to provide some answers to "why".

In addition to immunizations, the original thirteen key indicators that were identified in the 1985 *Child Care Quarterly* (1985 CCQ) article have not over the past three decades changed alot (STATE KI X 10KIf). There are fewer of them, **10 rather than 13** with group size and adult child ratio no longer on the list but it is interesting that these key indicators have stayed so constant for such a long time. And over the past three decades, many states have used the original 13 Key Indicators in designing their abbreviated inspections. Here is the original list of the 13 key indicators (Parents Guide Checklist) as published by the National Resource Center for Health and Safety in Child Care. For the

convenience of the reader, I have listed the key indicators below, for a more detailed look at these, please use the publications listed above. Those listed with an asterisk (*) are inclusive of the CCDF health and safety national requirements. Those that are ***italicized*** appear approximately two-thirds of the time on state key indicator lists (Thirteen Key Indicators Technical Research Update). All ten requirements are contained within *Caring for Our Children Basics and Stepping Stones*.

1. **Supervision of children**
2. **Hand washing and diapering**
3. **Director & teacher qualifications**
4. ***Children's immunizations****
5. ***Toxic substances are innaccessible****
6. **Emergency plan***
7. **Fire drills**
8. **Child abuse prevention***
9. **Medication administration***
10. ***Staff training/first aid****

One last comment about using the key indicator methodology with different data sets, such as with accreditation or QRIS systems. The key indicator methodology has been also used with ECERS to see if it was possible to find a similar relationship between scoring very high on individual items and the overall score. Only one item (**Item 16 – Children Communicating**) achieved a perfect correlation (r = +1.00) in which it was always scored very highly with only those ECE programs that scored equally highly on the total ECERS score.

I have maintained a national ECPQIM data base where a portion of these data are available at http://rikinstitute.wikispaces.com in various SPSS data files of the key elements. For interested researchers, I have the full data base available for further analyses.

Dr. Fiene will continue his work in further developing the professional development, training and technical assistance key elements of ECPQIM through his collaborative work with the Pennsylvania Chapter of the American Academy of Pediatrics, ECELS – Early Childhood Education Linkage System's, Infant Toddler Program Quality Improvement Project; and the Penn State Hershey, College of Medicine, Center for the Protection of Children's iLookOut for Child Abuse Prevention Project .

He is also continuing his work in the further development of differential monitoring in

Canada with the Province of Ontario's Ministry of Education (Tiered Licensing). This project will provide a comprehensive implementation, evaluation, and validation strategy for those jurisdictions planning on undertaking differential monitoring, risk assessment or key indicator methodologies.

And of course, his continuing collaboration and partnership with NARA – National Association for Regulatory Administration where the further development and dissemination of differential monitoring, risk assessment and key indicator methodologies will continue into the future along with the Validation Studies for each of these methodologies.

The ECELS ITQIP is finishing up its three year MCHB funding and here is an initial draft of the reports that have been produced over the past several years. It begins with the results from the pre-test in order to establish equivalency of the intervention and control groups. This is followed by the results from the first post test comparing the intervention group to the control group and looking at change over time. The third report in the series presents the results from the second post test comparing the cross over effects and latent effects of the intervention and control groups. And lastly, is the tool/instrument used to collect the data for all three years of the study (ECELS ITQIP Reports). This study and project is particularly exciting because it clearly demonstrates the effectiveness of a child care health consultant mentoring/coaching model in impacting selected ***Caring for Our Children*** standards focused on infant and toddler programs. It also demonstrated that the intervention is effective in a cross over methodology as well as having latent/lasting effects. This study builds upon the original mentoring/coaching study conducted at the Penn State Capital Area Early Childhood Research and Training Institute/Prevention Research Center in 2002 (CAECTI/PRC Mentoring/Coaching Article).

This study also demonstrated the effectiveness of monitoring. Data taken from the number of hours CCHC (Child Care Health Consultants) spent in programs doing mentoring/coaching had a positive impact on improving compliance with the *Caring for Our Children* standards. But this result was geared more towards the higher compliant programs and the number of hours in mentoring/coaching was not at the high end of the spectrum. So it appears that just a little help goes a long way with the highest compliant programs. This is significant because with the push for differential monitoring and abbreviated inspections, having several short monitoring visits still helps a program to improve (ITQIP JEHC Article).

Speaking of Validation Studies, here are several reports on QRIS Validation that should help to guide the reader with a strategic framework for doing these types of studies and a couple of other interesting studies and presentations:

- Early Childhood Research Quarterly Special Issue on QRIS Research
- QRIS Validation Framework
- QRIS Validation in Four States
- QRIS Validation Study Designs
- QRIS Validation of a Local Implementation
- QRIS Approaches to Validating Quality Rating & Improvement Systems
- Validation of QRIS
- Measures in QRIS Validation Studies
- QRIS Stakeholders Theories of Change and Models of Practice
- QRIS Maine Evaluation Report
- QRIS Family Child Care

- QRIS RAND Validation Studies
- RAND QRIS Second Generation Studies
- QRIS Studies & Outcomes
- QRIS and Coaching Quality Improvement
- QRIS Minnesota Parent-Aware-Validation Executive Summary
- QRIS Parent Aware Validation Report_Final
- QRIS Washington
- QRIS Validation Resources
- NAEYC Public Policy Report
- QRIS Keystone Stars Report
- South Carolina Childcare Initiatives
- QRIS Iowa
- QRIS Florida
- QRIS Wisconsin
- QRIS Delaware
- QRIS Delaware Validation
- Rhode Island Quality Study
- Texas Early Investment Project
- Foster Dissertation
- Florida ECE Costing Out Study Report
- Lets Talk March PPT
- Nurmesniemi
- PITC Guide Cognitive Development (Spanish) 2016

Letters of support Appropriations Letter, OMB Letter, DOE Letter, DOE Letter1, OMB letter 9.19.17, and Congressional letter 9.19.17 for evidence based programs, regulations, and policies that **RIKI – Research Institute for Key Indicators** signed on to support.

An excellent presentation done by researchers from ASPE, Child Trends, and Georgia DECAL which presents the future of ECE monitoring.

A New Report from ASPE highlighting 13 compelling models for infant toddler early childhood services in which mentoring/coaching models are highlighted, including CAECTI's Infant-Toddler Caregiver Mentoring Program.

Interesting article on the impact of quality early care and education services (Child Encyclopedia Article).

Three reports regarding child care licensing in Canada, Accreditation, and good standards improving child care quality that I found very interesting.

- Child Care Licensing in Canada
- CCIE Accreditation
- Good Standards Improve Child Care Quality

These two reports demonstrate support for the Theory of Regulatory Compliance which depicts the relationship between program quality and licensing/regulatory compliance where higher licensing standards show a statistically significant relationship with program quality standards but lower licensing standards do not. Also, a plateau effect occurs when moving from substantial regulatory compliance to full regulatory compliance as it relates to program quality standards.

- Head Start Report

- Georgia Report

Because of this plateau effect, it ushered in the key indicator and risk assessment methodologies which are at the basis of abbreviated inspections and differential monitoring. The purpose of these methodologies is not to have less standards or rules or regulations but rather to determine what are the “right” standards/rules/regulations that impact services the most because they statistically predict overall regulatory compliance or reduce harm or risk for morbidity or mortality.

Although the reports and examples are from early care and education, these methodologies are applicable to all human services (e.g., child and adult residential services, etc.) and probably to other regulatory areas outside of the human services arena.

Theory of Regulatory Compliance (**DOI:** 10.13140/RG.2.2.34971.67360)

Recently Georgia DECAL revised their enforcement and compliance policy which demonstrates one of the better examples of a risk asssessment system. Here is the link to their work (http://decal.ga.gov/CCS/EnforcementCompliancePolicy.aspx).

Here is a discussion I started within NARA (National Association for Regulatory Administration) about regulatory compliance data limitations and potential solutions:

I’d like to start a discussion about the nature of regulatory compliance/licensing data and the implications related to measurement. As a research psychologist who has spent his total professional career examining the impact of regulatory compliance policies on children and families, the issues related to measurement and program monitoring have always been at the forefront of my research studies. I have found regulatory compliance/licensing data to have many limitations when it comes to measurement and analysis because the data are severely skewed.

Why is this important? Generally in the social sciences, research psychologists deal with data that are more normally distributed with sufficient variance. However, licensing data are not and probably never will be close to being normally distributed. Actually, this is a good thing from a public policy point of view. We don’t want basic health and safety rules to be normally distributed; we want programs (as many as possible) to be in compliance with these basic health and safety rules. And this is usually what happens. But from a measurement standpoint, it creates difficulties in analyzing the data.

By having severely skewed data, it is difficult at times to distinguish amongst the data between mediocre programs and either higher performers or lower performers because there isn’t sufficient variance/separation in their scores. When I first noticed this, I suggested the use of weights attached to each rule in order to increase the variance in the data. This helps but is not sufficient in increasing the variance in the data. Unfortunately, this will always be a shortcoming of licensing data.

I point out this above limitation for future researchers who will be dealing with licensing data so that they can be aware of this but also to look at other statistical solutions to this problem and as a discussion point within NARA with other members to be aware.

I started a discussion earlier this morning (the above post) in which I presented some issues with regulatory compliance/licensing data. I don’t like bringing up issues or problems without at least proposing some solutions. So here are some solutions to this

problem regarding licensing data skewness.

One way is through weighting (I suggested this in my earlier post so let me expand here) which I have advocated for that introduces more variance in the data. This helps and is the basis for risk assessment systems but it can only go so far because it is really a statistical manipulation where we are saying that all regulations are not created nor administered equally. There are some regulations/rules that are more important than others; in other words, there are particular regulations/rules which reduce the potential risk of morbidity/mortality to clients if complied with.

Another potential solution, which I have observed in Pre-K programs, is the introduction of higher standards and their resulting influence on licensing compliance in general. This may be a more effective way to deal with the problem with skewness in data. If the data become more normally distributed because the standards are more stringent, this is a good thing. I think with Pre-K standards being utilized in more states and the advent of *Caring for Our Children Basics* that we may see a change in data distributions.

A complementary issue that probably is a result of the skewness of data has to do with the non-linear relationship between regulatory compliance and program quality. I have termed this relationship, Theory of Regulatory Compliance. This relationship I first observed in Pennsylvania in the late 1970's in early care and education (ECE) programs. I have continued to find this relationship between regulatory compliance and program quality data which is unsettling from a public policy standpoint. As a public policy administrator one expects that quality increases with higher levels of regulatory compliance, right. But this non-linear relationship doesn't support this conclusion – some of the highest quality programs are in substantial but not full regulatory compliance. I have suggested that higher licensing standards may eliminate this plateau effect when a high quality Pre-K program is introduced in a state ECE delivery system.

It was because of this non-linear relationship between regulatory compliance and program quality that ushered in the introduction of licensing key indicators and risk assessment systems in attempting to make inspection visits more efficient and effective by balancing program monitoring with quality initiatives.

These results are from the ECE research literature base but I strongly feel that these findings are applicable throughout the human services field and possibly beyond into any regulatory environment, such as banking or environmental regulations, to name a couple of different venues. This is more about finding the *"right"* regulations to monitor rather than finding *"fewer or more"* regulations to monitor. By utilizing a risk assessment/key indicator approach, this could be a solution to the deregulatory paradox.

For the interested reader, many of my reports which highlight the results above can be found at http://RIKInstitute.com/ecpqim

Here is another discussion question that I have been giving a great deal of thought to in how the key indicator methodology can be used. Generally, in the past, it has been based upon the compliance history (CI) for a specific provider. Very high regulatory compliance makes a program eligible for the use of an abbreviated key indicator inspection (KI). Very low regulatory compliance disqualifies a program for the use of an abbreviated key indicator inspection and generally leads to a more comprehensive full review of all rules (CI).

But there is another way to use the key indicator methodology. It could be used as a screener where every provider in a state receives the abbreviated key indicator inspection (KI) and based upon the results (compliance with all the key indicators) either the program gets another abbreviated inspection (KI) the following year or it moves to a more comprehensive full review (CI) if non-compliance is found with any of the key indicators.

In summary form, it would look something like this:

Compliance History data (CI) –> If high, key indicator inspection (KI), or if low, full comprehensive review (CI). (CI –> KI or CI).

Key Indicator as screener (KI) –> If high, key indicator inspection next year (KI), or if low, a full comprehensive review (CI). (KI –> KI or CI).

The advantage with the screener approach is that all providers from the beginning get a chance to be measured via key indicators. This could be looked upon by providers as initially more equitable in the application of key indicators. Something to think about as we move forward in the future development of the key indicator methodology.

NARA Newslink Blog of the Month – Key Indicators, by Dr. Rick Fiene.

We often get asked….'What exactly are Key Indicators?' and 'Why should my state agency be interested'? This month, Dr. Rick Fiene, the creator of The Key Indicator Methodology has posted a blog to answer those questions. Read today and post your comments. And if your interest has been peaked, join the ***Key Indicator Circle*** – a be a part of the NARA community.

NARA has recently created a Key Indicator webpage (http://www.naralicensing.org/key-indicators) that should help state licensing administrators get additional information about differential monitoring, risk assessment, and key indicator systems. I would highly recommend anyone who is interested to check out the new website. It is listed under the NARA Resources Folder on the Menu, just click on Key Indicators.

Here is a pdf of the page which compiles the various reports and studies listed on the NARA webpage (NARA Key Indicator Reports & Studies Examples from Webpage).

RIKI – Research Institute for Key Indicators (http://RIKInstitute.com) has joined a select group of organizations in a strategic partnership with NARA – National Association for Regulatory Administration. Here is the statement on NARA's website:

Strategic Partnerships

NARA has developed a broad spectrum of strategic relationships that provide access to the most up-to-date information on child care and child welfare regulations at both the federal and state levels. NARA's collaborative relationships with agencies and advocacy organizations include:

- Collaborative Relationships within the Administration for Children & Families (ACF), Office of Child Care
- National Center for Early Childhood Quality Assurance (NCECQA)
- Children's Environmental Health Network

- Childcare Exchange
- The National Resource Center for Health and Safety in Child Care and Early Education (NRC)
- Generations United
- Annie E. Casey Foundation
- American Bar Association
- RIKI Institute

For more information, please email collaborations@naralicensing.org.

I recently updated the ***NARA Licensing Curriculum Licensing Measurement and Systems Course***. Here is a brief outline of the Course (Content (Webpage location)):

Licensing Measurement, Regulatory Compliance, and Program Monitoring Systems

Richard Fiene, Ph.D.

- *Overview (ECPQIM/DMLMA & Publications)*
- *Conceptual/Theoretical Framework (ECPQIM/DMLMA & Publications)*
- *Principles of Instrument Design (RIKI Reports & Appendix)*
- *Measurement: Reliability and Validity (RIKI Reports & Appendix)*
- *Regulatory Compliance and Program Quality (ECPQIM/DMLMA)*
- *QRIS and other Quality Initiatives (RIKI Blog)*
- *Statistical Methods and Data Base Development (RIKI Reports & RIKI Blog)*
- *Coordinated Program Monitoring, Evaluation, & Validation (National)*
- *Differential Monitoring, Risk Assessment, Key Indicators (ECPQIM/DMLMA & RIKI Blog)*
- *What Research Tells Us (Posters/Articles)*
- *What Research Doesn't Tell Us: Unanswered Questions (RIKI Blog)*
- *National, International, and State Examples (RIKI Reports, RIKI Blog & Appendix)*
- *Future Directions (RIKI Blog)*
- Text Book: *(RIKI ECPQIM-DMLMA Book of Readings)*
- Lectures: *(RIKI/NARA ECPQIM/DMLMA Slides)*

Please contact Dr Fiene if you have questions or comments:
Rick Fiene, Affiliate Professor, Penn State Prevention Research Center at *rjf8@psu.edu*, or *riki.institute@gmail.com or RFiene@NARALicensing.org*

Big news out of the Province of Ontario: the Child Care Quality Assurance and Licensing Branch within the Early Years Division won their Ontario's Ministry of Education Realm Award for Innovation for their Tiered Licensing System. The REALM Awards recognize excellence and achievement in the Ministry of Education and the Ministry of Training, Colleges and Universities (the Learning Ministries). Their Tiered Licensing System utilizes the Differential Monitoring, Key Indicator, and Risk Assessment Methodologies. What is so exciting about the Ontario Tiered Licensing System is that it uses both key indicators and risk assessment approaches for their differential monitoring system. Most jurisdictions use either key indicators or risk assessment but not both together. The Ontario approach provides a blueprint for combining the two methodologies together in the most cost effective and efficient differential monitoring approach. The NARA Press Release: (narapressrelease-award 002).

Additional information about the award and project:

The **Prix REALM Awards** program formally recognizes Learning Ministries' (Ministry of

Education and Ministry of Training, Colleges and Universities) staff for exceptional and outstanding contributions to:

- the services provided to Ontarians and/or,
- making the Learning Ministries a better place to work

This year outstanding achievements will be recognized in five award categories: Collaboration, Customer Service, Diversity and Inclusion, Innovation, Leadership and Lifetime Achievement

Won for Innovation:

Eligibility: Nominees in the category must have developed a new way of doing or thinking beneficial to a business process, program, initiative, or work environment.

About the project:

As part of the modernization of child care, Ontario's Ministry of Education has developed an innovative risk-based approach to child care licensing – tiered licensing. Tiered licensing is designed to maximize the effectiveness and efficiency of the licensing process by focusing ministry resources where it matters most – on centres that need help to achieve compliance and areas of highest risk to children's health and safety and importance to their learning and development – with the goal of improving regulatory compliance in all centres. Tiered licensing is built on best practices from across North America, a robust methodology and a cutting edge IT solution.

More details:

Ontario's Ministry of Education has developed an original, transformative and innovative risk-based approach to child care licensing called tiered licensing.

The tiered licensing approach has been designed in-house to maximize the effectiveness and efficiency of the licensing process with the goal of improving regulatory compliance and quality in all child care centres. Under this approach, ministry resources will be targeted to areas where they matter most – on centres that need extra support to come into compliance and on areas of highest risk to children's health and safety. At the same time, the approach will free up resources to provide more in-depth support in the important area of child development and wellbeing.

The ministry is transforming how child care licensing is performed in Ontario through tiered licensing by engaging the expertise of front line staff, Municipalities and licensees and integrating best practices from across North America to develop a robust new methodology and a cutting edge IT solution.

Ontario will be the first province in Canada to adopt a comprehensive risk-based approach for child care licensing and is now on the map as a North American leader in innovative regulatory practices. Dr. Richard Fiene, a leader in the field of regulatory administration for over four decades and a consultant on the project, has referred to Ontario's approach as a "blueprint that other jurisdictions should follow."

A Canadian Perspective Implementing Tiered Licensing in Ontario

NARA 40 years of Milestones:

NARA Milestones

Maine is in the news for improvements to their child care licensing program. Please go to the following link (Maine Licensing System) to learn more.

Here is a powerpoint presentation for researchers and statisticians which has all the math and logic modeling for ECPQIM.

Math/Logic Modeling of ECPQIM

Here is a pdf of the latest powerpoint presentation which has an evaluation and validation study of differential monitoring, key indicators and risk assessment methodologies:

- PPT139 NARA-RIKI – Single slides per page (139 pages).
- PPT139 NARA-RIKI6 – Multiple slides per page (24 pages).

RESEARCH INSTITUTE FOR KEY INDICATORS (RIKI) Contributions to the Human Services Field

- Early Childhood Program Quality Improvement and Indicator Model
- Differential Monitoring Logic Model and Algorithm
- Clustering/Herding Behaviors of Two Year Olds
- Regulatory Policy based upon Clustering/Herding for Adult Child Ratios
- Mathematical Model for Computing Adult Child Ratios
- Child Development Program Evaluation Scale – CDPES
- Theory of Regulatory Compliance
- Instrument Based Program Monitoring
- Human Service Program Differential Monitoring
- Licensing Weighting/Risk Assessment – CFOCB and Stepping Stones
- Licensing and Quality Key Indicators – 13 Indicators of Quality, HSKI
- National Early Childhood Program Accreditation (NECPA)
- Human Service Provider Mentoring/Coaching – CAECTI/ECELS
- Pinging linked with Coaching and Individualized Learning

EARLY CHILDHOOD PROGRAM QUALITY IMPROVEMENT & INDICATOR MODEL (ECPQIM) KEY ELEMENTS (Publications)

- The ECPQIM/DMLMA Model *International Regulatory Compliance Comparisons – ICEP*
- *Licensing & Monitoring Publications – ASPE, OCC, CCQ, NARA, ZTT*
- Program Compliance *Caring for Our Children – NRC/AAP/APHA*
- *Instrument based Program Monitoring – CCQ*
- Program Quality *Keystone Stars Evaluation – OCD; Validation – OPRE*
- *Infant Toddler Mentoring/Coaching Program – CYCF, ASPE*
- *Health Consultants Impact Infant Toddler Care – JPHC*
- *National Early Childhood Program Accreditation – NECPA*
- Program Compliance x Program Quality *Theory of Regulatory Compliance – NEJHS*
- *Child Development Program Evaluation Scale – CCQ*
- Risk Assessment *Stepping Stones – NRC/AAP/APHA*
- Key Indicators *Thirteen Key Indicators of Quality Child Care – ASPE*
- *Head Start Key Indicators – OHS*
- Risk Assessment x Key Indicators *Caring for Our Children Basics – ACF*

- Child Development Outcomes *Quality in Child Care: What Does Research Tell Us? – NAEYC*

1. ECPQIM0: 1972 – 1974. Regional Model; EMIS (Fiene etal, 1975)*. This was the original conceptualization when I was a graduate student. (ECPQIM0/EMIS)
2. ECPQIM1: 1975 – 1994. Qualitative to Quantitative; focus on reliability; data utilization linking monitoring to training/technical assistance systems; distinctions between program monitoring and evaluation; Key Indicators, Weighted Rules, & principles of licensing instrument design introduced. (Fiene, 1981; Fiene & Nixon, 1985). This is the original article written describing the model and suggesting the use of differential monitoring. (ECPQIM1/CCQ)
3. ECPQIM2: 1995 – 1999. Policy Evaluation and Regulatory Systems Planning added to model. (Griffin & Fiene, 1995). (ECPQIM2/ZTT)
4. ECPQIM3: 2000 – 2011. Inferential Inspections & Risk Assessment terminology added to the model. (Fiene & Kroh, 2000). (ECPQIM3/NARA)
5. ECPQIM4/4+: 2012 – present. Validation with expected Thresholds & Differential Monitoring formally added via a logic model and algorithm; Quality Indicators introduced. (Fiene, 2012, 2013b, 2015). (ECPQIM4/DMLMA)

These are the various editions/versions of the Early Childhood Program Quality Improvement and Indicator Models (ECPQIM0–4+) that I developed while a graduate student and then improved upon the original design. All the citations can be found in the publications webpage which is part of this RIKI website.

The next section below contains the most recent examples of ECPQIM key elements. These are all projects actively going on presently (2016) in the Province of Ontario, Pennsylvania Chapter of the American Academy of Pediatrics, and the Penn State College of Medicine.

- ECPQIM1 DM, KI, RA Evaluation & Validation
- ECPQIM2 PD Mentoring
- ECPQIM2 PD Mentoring/Coaching
- ECPQIM2 PD ECELS
- ECPQIM2 PD ITQIP
- ECPQIM3 PD Internet Training
- ECPQIM3 PD Internet Training Research Protocol

Here is a very important technical aspect of the Key Indicator Methodology that I want to share with researchers and statisticians. There are many different cut points or thresholds that can be used to determine the high group from the low group in constructing the 2 x 2 matrix for the phi coefficients (Φ ***= (a)(d) – (b)(c)/sqrt (w)(x)(y)(z))***. Ideally, ***(a)(d)*** should be much higher than ***(b)(c)***. In fact, ***(b)(c)*** should be as close to zero as possible. For example, the high regulatory compliance group ***(a)*** could only be those providers who attain 100% regulatory compliance with all rules/regulations. The low regulatory compliance group ***(d)*** could be those providers who attain 99% or lower regulatory compliance with all rules/regulations. Or the high group could be 100-99% regulatory compliance and the low group could be 95% or less regulatory compliance with all rules/regulations. In this approach the middle 50% of the data are not used. I have reported in a previous technical report that a top 25% and a bottom 25% of compliance history for programs was the most optimum cut points. It appears from two separate studies to test this hypothesis that this approach does appear to be the most effective and efficient dichotomization of the regulatory compliance data.

A study completed in New York bears this out where various cut points/thresholds were used. Another study going on in Michigan (Centers, Family Homes, Group Homes)

where various cut points/thresholds were used with the regulatory compliance data supports this contention as well.

For reaching me online, here are my email and website contacts at RIKI and NARA:

Richard Fiene, Ph.D., Research PsychologistRIKI – Research Institute for Key Indicators LLC Senior Consultant for Licensing Measurement & SystemsNARA – National Association for Regulatory AdministrationRIKI.Institute@gmail.com RFiene@NARALicensing.org
http://RIKInstitute.com/RIKI
http://www.naralicensing.org/key-indicators

Regulatory Compliance Monitoring Paradigms and More

Thursday, December 29, 2016

Here are some working papers and graphics I have started to work on to provide direction and guidance for regulatory compliance monitoring at both the state and national levels. Most of the examples are from early care and education but the concepts are generic and can be applied to any public or private human service regulations.

- National Differential Monitoring Conceptual Framework
- Regulatory Compliance Monitoring Paradigms (**DOI:** 10.13140/RG.2.2.23767.06564)
- Theory of Regulatory Compliance (**DOI:** 10.13140/RG.2.2.34971.67360)
- ECPQIM/DMLMA Update
- Theory of Regulatory Compliance Working Research Papers 2017
- Theory of Regulatory Compliance Algorithm 2017
- Theory of Regulatory Compliance Algorithm in Excel 2017

Research Services

Wednesday, February 01, 2017

If you are in need of *empirically based decision making* via big data analysis, RIKILLC may be a resource you explore. RIKILLC can help organizations, agencies, and businesses as they wade through the reams of data swirling in their various data bases. Based upon practically a half century of experience in exploring research trends in data, put these resources to use in your own establishment.

Sample Reports:

- National Report Example
- State Validation Report Example
- State Blueprint Report Example
- State Quality Assessment Report Example

For additional information, please email **Fiene@RIKInstitute.com**.

Or for those interested in the future development and dissemination of *Differential Monitoring, Key Indicator and Risk Assessment* methodologies as addressed in the National Association for Regulatory Administration (NARA) website (

http://www.naralicensing.org/key-indicators), please contact **RFiene@NARALicensing.org** for additional details.

Or for those interested in the *Regulatory Compliance Monitoring Paradigm* research as addressed in the RIKI Blog (**https://rikinstitute.com/blog/)**, please contact **rjf8@psu.edu** for additional details.

Theory of Regulatory Compliance Working Research Papers & A...

Tuesday, February 07, 2017

Three working papers and algorithms for 2017 that provide some guidance for those who are more interested in the Theory of Regulatory Compliance math modeling. I have expanded upon a previously posted working paper (first paper) providing additional details on the algorithms (second document) presented in the first paper and examples in Excel (third document).

1. Theory of Regulatory Compliance Working Research Papers 2017
2. Theory of Regulatory Compliance Algorithm 2017
3. Theory of Regulatory Compliance Algorithm in Excel 2017

Technical Research Notes & Papers

Saturday, February 11, 2017

Here are several Technical Research Notes and Papers updating, refining, and validating the differential monitoring, risk assessment and key indicator methodologies:

- Regulatory Compliance Matrices
- Theory of Regulatory Compliance & Regulatory Compliance Monitoring Paradigm Matrix Research Notes
- Key Indicator Methodology 2015 Update
- DM, RA, KI Predictive Analytics Questions
- Dichotomization of Data
- Key Indicator Technical Notes (2) 2015
- Validation of Key Indicator Systems
- Validation of Key Indicators Examples
- Classification Matrix Sensitivity Analysis

There is a very useful analytical technique which can be used with the above validation papers that I would suggest (Classification Matrix and Sensitivity Analysis for Validating Licensing Key Indicators)(better known in the statistical and data analysis field as the “Confusion Matrix”) researchers using which provides several measures to determine if the Licensing Key Indicator methodology is working as it should. Please pay particular attention to the following measures: accuracy, correlation, and false negatives when determining the validity of your Licensing Key Indicator System.

NARA February 23rd Webinar on Regulatory Compliance Monitoring Para...

Friday, February 17, 2017

NARA – National Association for Regulatory Administration will be hosting a Webinar (February 23rd) on ***Regulatory Compliance Monitoring Paradigms***. Please see the following URL for additional information: NARA Webinar Announcement

The Penn State Edna Bennett Pierce Prevention Research Center Webpage Announcement about the Webinar:

Edna Bennett Pierce Prevention Research Center Annoucement

RIKI

Tuesday, February 28, 2017

The RIKI (Research Institute for Key Indicators) Institute, directed by Dr Richard Fiene, Retired Professor of Psychology and Human Development, Penn State University, focus is to improve the quality of early care and education programs nationally and internationally through an empirically based Key Indicator Methodology. Readers will find selected publications on this website and the links listed below that describe the specific Key Indicator methodology created by Dr Fiene.

NARA Webinar: A Canadian Perspective: Implementing Tiered Licensing...

Wednesday, June 07, 2017

NARA Webinar: A Canadian Perspective: Implementing Tiered Licensing in the Province of Ontario

Thursday, June 22 **Register Today!**

Faced with growing caseloads for their child care inspectors, the province of Ontario recently implemented a “tiered” approach to allocating licensing resources. Under the new system, centers that have consistently demonstrated high levels of compliance (Tier 1 and 2) are rewarded with longer duration licenses and abbreviated inspections, while lower-performing centers (Tier 3) receive additional ministry oversight and support. In this session, you will learn about the data-driven tier assessment model, the methodology used to develop the abbreviated inspection checklist and early evaluation results.

Featuring

Dana Green, Manager, Child Care Quality Assurance and Licensing Branch, Ontario

Natasha Kabani, Senior Policy Analyst, Child Care Quality Assurance and Licensing Branch, Ontario

12:30-1:30pm AST

11:30-12-30pm EST

10:30-11:30am CST

9:30-10:30am MST

8:30-9:30am PST

7:30-8:30am AKST

Cost: $45 for members, $60 for non-members

NARA and Montana

Wednesday, June 28, 2017

Here is a collaborative effort between NARA and Montana describing the Key Indicator System Methodology:

NARA – National Association for Regulatory Administration Key Indicator Powerpoint Presentation and Audio:

(
https://zoom.us/recording/play/4L2v_U3rxDuNe5bZDPpR8mEXaIpkXzunaG_H8k0hWULjUVJ6CiqTeo0NmMVpHQyw)

NARA Licensing Key Indicator Systems Flyer

Wednesday, June 28, 2017

This is a new NARA Flyer describing the Licensing Key Indicator Systems. The flyer provides an overview to the key indicator methodology and its possible uses within agencies:

Please click on the following Link:

NARA Licensing Key Indicators

Penn State Prevention Research Center Updates their Website

Friday, June 30, 2017

The Pennsylvania State University Edna Bennett Pierce Prevention Research Center has updated their website recently:

http://www.prevention.psu.edu/

Contact Information

Thursday, July 06, 2017

Many of you have asked what is the best way for getting in touch with me. Here is my latest contact information:

- **Dr Richard Fiene, Senior Research Psychologist & Director**
- **Research Institute for Key Indicators LLC (RIKILLC)**
- **717-598-8908**
- **RFiene@RIKInstitute.com**

Email continues to be the best way to get in touch with me.

In partnership with the National Association for Regulatory Administration (NARA) and the Pennsylvania State University's Edna Bennett Pierce Prevention Research Center (PRC). Dr Fiene is a Senior Consultant with NARA and an Affiliate Professor with PRC.

Child Care Health Consultation Improves Infant and Toddler Care

Sunday, August 20, 2017

Here is a link to the Journal of Pediatric Health Care which published a very significant study on how child care health consultation improves infant and toddler care.

New Resources from the National Center on Early Childhood Quality A...

Wednesday, August 23, 2017

Here are two new resources from the National Center on Early Childhood Quality Assurance (ECQA Center):

- ***National Program Standards Crosswalk Tool***
- ***Developing and Revising Child Care Licensing Requirements***

"The National Center on Early Childhood Quality Assurance (ECQA Center) is pleased to announce the release of these new and updated resources that support states and territories in the implementation of Child Care and Development Fund (CCDF) requirements. These and other resources are available on the ECQA Center Web page."

ACF OCC Announcements (8/21/17)

RIKILLC Clients and Proposals

Saturday, August 26, 2017

Here is a listing of RIKILLC past and present clients and collaborators as well as proposals that have been submitted to clients and interested clients who have contacted RIKILLC related to services, and expert witness engagements or consults to give individuals an idea of the scope of work undertaken by the Research Institute for Key Indicators LLC over the past five years:

1. **GEORGIA**
2. **GEORGIA EXTENSION**
3. **UNC-CH**
4. **NARA CALIFORNIA**
5. **NARA KANSAS**
6. **NARA MICHIGAN**
7. **NARA WISCONSIN**
8. **NARA ILLINOIS**
9. **NARA MONTANA**
10. **SASKATCHEWAN**
11. **BRITISH COLUMBIA**
12. **NARA WASHINGTON**
13. **NARA NEW YORK**
14. **MISSOURI**
15. **NARA ARIZONA**

16. NARA DM/KI/RA RIKI
17. CFOCB-C/ECELS/PAAAP/UCSF
18. ONTARIO
19. HEAD START
20. LEWIN/DANYA
21. NHSA
22. NQAC
23. OCC
24. ACF
25. ASPE
26. MASSAC H USETTS
27. ICF I /KOCH
28. ICF I
29. NQA/ICFI
30. INQUIRE
31. HAWAII
32. OREGON
33. COLORADO
34. NEW YORK
35. EDS DELAWARE QRIS
36. ECELS PA AAP
37. HERSHEY MEDICAL CENTER/CPC /PENN STATE (3)
38. VIRGINIA LEGAL
39. NEW JERSEY LEGAL
40. BETTER KID CARE/PENN STATE

NARA 2017 Licensing Seminar

Wednesday, August 30, 2017

The National Association for Regulatory Administration (NARA) is holding its 25th Annual Licensing Seminar next month. Please see the attached brochure which highlights this premier seminar on regulatory administration and compliance in the human services field (NARA 2017 Seminar Program).

NARA Webinar: The Importance of Key Indicators and Risk Assessment ...

Tuesday, September 05, 2017

NARA Webinar: The Importance of Key Indicators and Risk Assessment in a New National ECE Monitoring System and the Introduction of a new Coaching Model

Thursday, September 28, 2017 – Register Today!

We will explore how key indicator and risk assessment methodologies contribute to the development of a national monitoring system for federally funded ECE programs and how a new technology called “Pinging” may be an innovative delivery model for online coaching.

Featuring Dr. Rick Fiene of the Research Institute for Key Indicators and the Prevention Research Center, Pennsylvania State University.

Efficient and Effective Monitoring in Licensing Peer Learning Group

Monday, September 25, 2017

The BUILD Initiative – QRIS National Learning Network, NECQAC – National Early Childhood Quality Assurance Center, and NARA- National Association for Regulatory Administration have collaborated on the development and implementation of a major initiative with ten states dealing with more efficient and effective monitoring in licensing.

Please see the following HHS/ACF Office of Child Care website (***2017 Efficient and Effective Monitoring in Licensing Peer Learning Group***) for the details of this innovative Peer Learning Group. Ten states (Alabama, Delaware, District of Columbia, Indiana, Iowa, Pennsylvania, New Jersey, Rhode Island, Texas, and West Virginia) participated in the Peer Learning Group and the series of webinars have produced several significant resources. I would highly recommend this webinar series for other states, other human services, and other jurisdictions to take a look at this innovative approach to monitoring in licensing. The webinars really do move the human services licensing and monitoring fields forward in so many positive ways.

Article published in Journal of Pediatric Health Care

Friday, October 20, 2017

The following article is being published in the **Journal of Pediatric Health Care, Volume 31, Issue 6, November–December 2017, Pages 684-694:** ***Caring for Our Children Health and Safety Standards Into Child Care Practice: Child Care Health Consultation Improves Infant and Toddler Care*** . This article describes a very successful coaching/mentoring intervention.

Licensing and Quality Data Distributions

Thursday, November 09, 2017

Here are two technical research notes which depict licensing and quality data distributions from several states and national data bases maintained by the **Research Institute for Key Indicators (RIKILLC).**

- Licensing and Quality Descriptive Statistics with Graphic
- Licensing and Program Quality Data Distributions

The most prominent aspect of the data displays is the skewness of the licensing data in comparison to the quality data which are more normally distributed. Because of the non-parametric tendencies of licensing data there are limitations in analyzing the data. It also introduces certain unwanted results in which a good deal of mediocrity is introduced into the highest levels of compliance with licensing rules when compared to quality scores. With these limitations in the data, certain methodologies were introduced to overcome these, such as risk assessment/weighting of rules and key indicator/predictor rules to focus and target monitoring reviews on the most critical health and safety rules/regulations. Differential monitoring is the result when these two methodologies are employed in a program monitoring system.

iLookOut for Child Abuse

Thursday, November 09, 2017

The ***iLookOut for Child Abuse*** **Online Training Program** sponsored by the Center for the Protection of Children and Department of Humanities, Penn State Hershey and funded by National Institute for Child Health and Human Development is a must see for human service state administrators and training/professional development coordinators. The ***iLookOut*** training will explain signs, symptoms, and risk factors of abuse as well as what, how, and when to report suspected child abuse. Overall, the participant will learn their role as a mandated reporter. Please go to the following website to find out more: **(http://ilookoutproject.org/).**

Here is the latest presentation by Dr Benjamin Levi on the iLookOut program and a poster presentation by Dr Carlo Panlilio:

iLookOut Presentation

iLookOut Poster

NARA Webinar: Theory of Regulatory Compliance, January 25, 2018

Tuesday, January 09, 2018

NARA Webinar: Theory of Regulatory Compliance
Thursday, January 25, 2018 – Register today!

1:30pm AT
12:30pm ET
11:30am CT
10:30am MT
9:30am PT
8:30am AKT

The theory of regulatory compliance is the basis for risk assessment, key indicators and differential monitoring. Without this theory, these methodologies could not be used within human service licensing. This webinar will discuss the essence of the theory and its implications beyond human service licensing to econometrics.

Featuring
Dr. Rick Fiene, Research Institute for Key Indicators

Dr. Fiene has spent 40+ years in developing and improving key indicator, risk assessment and differential monitoring methodologies. After a long career in Pennsylvania State Government as a research psychologist and the Pennsylvania State University as a professor of psychology, in 2013 he created the Research Institute for Key Indicators (RIKI) in order to consolidate all research on differential monitoring. Most recently RIKI has entered into a strategic partnership with NARA on the future development of key indicators, risk assessment and differential monitoring to all human services.

New OPRE Research Report on QRIS Validation Studies

Friday, January 26, 2018

Attached is a new OPRE Research Report on the Validation of Quality Ratings Used in QRIS – Quality Rating and Improvement Systems:

Validation of Quality Ratings in QRIS

Early Childhood Innovation Prize

Saturday, February 03, 2018

This is one of the most interesting initiatives and solutions in early care and education that I have seen. It is like the “Nobel Prize” for Early Childhood Education. What a great idea! So collaborative and creative. Please check out the following websites for additional information:

Early Childhood Innovation Prize

Early Childhood Program Quality Improvement and Indicator Model (ECPQI2M)

Early Childhood Task Force with Fred Rogers as Honorary Chairperson

Tuesday, February 20, 2018

Here is an oldie but one that is worth sharing since we are celebrating Fred Rogers 50th Anniversary of Mr Rogers Neighborhood: creation of the Early Childhood Task Force with Mr Rogers as the honorary chairperson as signed by then Governor Schweiker back in 2002. Here is the announcement about the creation of the Task Force:

Early Childhood Task Force with Gov Schweiker and Mr Rogers

NARA March Webinar: Key Indicators for Adult Care

Wednesday, February 21, 2018

MARCH WEBINAR

KEY INDICATORS FOR ADULT CARE

NARA Webinar: Key Indicator Systems in Adult Care Settings – A Powerful Resource

Thursday, March 8 2018 – Register today!

1:30pm AT
12:30pm ET
11:30am CT
10:30am MT
9:30am PT
8:30am AKT

Key Indicator Systems identify a statistically-validated subset of regulations that indicate compliance with the entire set of regulations, allowing licensing oversight agencies the ability to conduct abbreviated inspections while still ensuring that safe, high-quality care is provided in all settings.

Although agencies nationwide are moving towards Key Indicator Systems as an effective alternative to traditional licensing methods, nearly all Key Indicator Systems are developed for child care programs, and are vastly underutilized in adult-care licensing.

This webinar will present an overview of how Key Indicator Systems work, discuss why such systems are not more prevalent in adult-care licensing programs, and explore the benefits of Key Indicator Systems to persons in care, adult-care providers, the licensing agency, and the general public.

FEATURING

Ronald Melusky, Director of the Division of Program Operations, PA Dept. of Human Services

Mr. Melusky is the Director of the Division of Program Operations in the Pennsylvania Department of Human Services, Office of Developmental Programs. His division oversees statewide implementation of licensing activities in day and residential programs for adults with intellectual disabilities and autism. Mr. Melusky has previously served as a member of NARA's Board of Directors and as President-Elect from 2012 – 2014. He has assisted in the development of Key Indicator Systems for numerous licensing oversight agencies.

NARA Key Indicator System: Facilitated Dialogues with Dr. Rick Fiene

Wednesday, February 21, 2018

Key Indicator System: Facilitated Dialogues w/ Dr. Rick Fiene

NEW! FOR PROFESSIONALS IN…

Child Care | Adult Care | Child Welfare

In partnership with Dr. Rick Fiene, NARA is starting facilitated dialogues on Key Indicator Systems. The Key Indicator System methodology applies across licensing areas and these dialogues will allow licensing professionals across child care, adult care, and child welfare to discuss the application and theory of Key Indicators as they increase efficiency and effectiveness of existing licensing systems.

This group will meet for one hour in March, June, and during NARA's Annual Licensing Seminar in 2018. Additional meetings will be determined as the group sees fit.

To join this new group, please fill out this short 3 question survey to indicate your interest and let us know which Key Indicator topics most interest you.

NARA's KEY INDICATOR FACILITATED DIALOGUES with DR. RICK ...

Tuesday, March 13, 2018

NARA (National Association for Regulatory Administration) is excited to present new, facilitated dialogues on Key Indicators with Dr. Rick Fiene, the father of the Key Indicator System. The Key Indicator System methodology applies across all licensing areas; these dialogues will allow licensing professionals across child care, adult care, and child welfare to discuss the application and theory of Key Indicators as they increase efficiency and effectiveness of existing licensing systems.

This group will meet for one hour in March, June, and during NARA's September Licensing Seminar in 2018. Additional meetings will be determined as the group sees fit.

Dr. Fiene has spent 40+ years in developing and improving Key Indicator, risk assessment and differential monitoring methodologies. After a long career in Pennsylvania State Government as a research psychologist and the Pennsylvania State University as a professor of psychology, in 2013 he created the Research Institute for Key Indicators (RIKI) in order to consolidate all research on differential monitoring. Most recently RIKI has entered into a strategic partnership with NARA on the future development of Key Indicators, risk assessment and differential monitoring to all human services.

Please go to the following webpage for additional information:

www.naralicensing.org/key-indicator-facilitated-dialogues

NARA's Key Indicator System: Facilitated Dialogues this F...

Tuesday, March 20, 2018

Key Indicator System: Facilitated Dialogues this Friday, March 23

Join Dr. Fiene and NARA at

3-4pm AT | 2-3pm ET | 1-2pm CT | 12-1pm MT | 11-12pm PT | 10-11am AKT

Child Care | Adult Care | Child Welfare

NARA is excited to present facilitated dialogues on Key Indicators with Dr. Rick Fiene, the father of the Key Indicator System. The Key Indicator System methodology applies across all licensing areas; these dialogues allow licensing professionals across child care, adult care, and child welfare to discuss the application and theory of Key Indicators as they increase efficiency and effectiveness of existing licensing systems.

2018 Meeting Details

Months: March, June, and September
Duration: 60 minutes
Date/Time: March 23 at 2-3pm ET

Every effort will be made to find a date that works for all participants, however, if you cannot join a meeting: 1) you may submit questions in advance for Dr. Fiene to answer, and 2) NARA will send you the discussion recording.

September's meeting will be held *both* in person for those attending seminar and via conference call line.

Meeting recordings will be made available to participants.

Participants will be given access to a Community Forum to continue discussion and ask questions between meetings.

Additional meetings into 2018 and beyond will be determined as the group sees fit.

To Join this Group

Complete registration and payment for the 2018 Facilitated Dialogues Package – three (3) 60-minute meetings in 2018 to learn from Dr. Fiene and ask questions specific. You may join this group after it begins in March; you will be sent the recordings for meetings missed.

Register here

Member cost:

Individual and Organizational: $75 per person (breaks down to $25 per session)

Retiree & Student: $60 per person (breaks down to $20 per session)

Non-member cost: $120 per person (breaks down to $40 per session)

About Dr. Rick Fiene

Dr. Fiene has spent 40+ years in developing and improving Key Indicator, risk assessment and differential monitoring methodologies. After a long career in Pennsylvania State Government as a research psychologist and the Pennsylvania State University as a professor of psychology, in 2013 he created the Research Institute for Key Indicators (RIKI) in order to consolidate all research on differential monitoring. Most recently RIKI has entered into a strategic partnership with NARA on the future development of Key Indicators, risk assessment and differential monitoring to all human services.

NARA's First Key Indicator System Facilitated Dialogue Se...

Tuesday, March 27, 2018

NARA's Key Indicator System: Facilitated Dialogues was held on Friday, March 23

Participants joined Dr. Fiene and NARA at the following time to discuss Key Indicators, Licensing Measurement & Systems

3-4pm AT | 2-3pm ET | 1-2pm CT | 12-1pm MT | 11-12pm PT | 10-11am AKT

Child Care | Adult Care | Child Welfare

NARA was excited to present the first session of facilitated dialogues on Key Indicators with Dr. Rick Fiene, the father of the Key Indicator System. The Key Indicator System methodology applies across all licensing areas; these dialogues allow licensing professionals across child care, adult care, and child welfare to discuss the application and theory of Key Indicators as they increase efficiency and effectiveness of existing licensing systems.

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Regulatory Compliance Decision Making Using the Key Indicator Metho...

Friday, March 30, 2018

In this blog I have a new Technical Research Paper on how best to make regulatory compliance decisions. " *The purpose of the 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*."

This paper builds upon previous Technical Research Papers and other publications in which I have described the technical details of the key indicator methodology. This paper hopefully provides a more straightforward presentation without the algorithms and statistical formulas.

Regulatory Compliance Decision Making Using the Key Indicator Methodology

Richard Fiene, Ph.D., Senior Research Psychologist, Research Institute for Key Indicators; Professor of Psychology (retired), Penn State University; and NARA Senior Consultant.

Research Institute for Key Indicators (RIKILLC)

Three Things We Have Learned in Regulatory Compliance

Tuesday, April 03, 2018

Here is a very short paper/abstract entitled: ***Three Things We Have Learned about Key Indicators, Risk Assessments, and Differential Monitoring*** over the past 40+ years of doing research on these methodologies.

KI, RA, DM National Update

Building Effective and Efficient Program Monitoring Systems for Hum...

Monday, April 09, 2018

Attached is a paper that describes the basic tenets/elements of building an effective and efficient program monitoring system for human services. State administrators are constantly under pressure to ensure the health and safety of clients (effectiveness) while not being overly burdensome on the providers of care (efficiency). This paper highlights how effectiveness and efficiency are tied together and in how efficiency efforts can overshadow effectiveness under certain conditions.

Basic Tenets of Effective and Efficient Monitoring Systems3

Richard Fiene, Ph.D., Senior Research Psychologist, Research Institute for Key Indicators (RIKILLC), Professor of Psychology (ret), Penn State University, & Senior Consultant, National Association for Regulatory Administration (NARA).

Contact Dr Fiene at Fiene@RIKInstitute.com or RFiene@NARALicensing.org or rjf8@psu.edu

Linear versus Non-Linear Reality

Monday, April 09, 2018

Here are some notes that I hope will generate a good deal of thinking about how we approach reality given some random observations about data (mathematics and statistics), psychology (public policy) and physics (time and space). This is very different from my other posts on this blog but it does tie in nicely with my data prediction research I have been doing for a really long time within the public policy sector dealing with regulatory compliance and administration.

Linear and Non Linear Reality1

Richard Fiene, Ph.D., Senior Research Psychologist, Research Institute for Key

Indicators (RIKILLC), Professor of Psychology (ret), Penn State University, & Senior Consultant, National Association for Regulatory Administration (NARA).

Contact Dr Fiene at Fiene@RIKInstitute.com or RFiene@NARALicensing.org or rjf8@psu.edu

Research Projects Over the Past 40 Years

Monday, April 09, 2018

I have had the opportunity to work on some very interesting projects over the past 40 years+ as a research psychologist and professor. I have worked with many National Organizations; Federal, Local and State Agencies; and private human service agencies during my professional career. But probably the best project I ever worked on was with Royal Caribbean Cruise Line where we were asked to assess their youth activity programs (aka child care). What was so much fun with this project was the data collection phase where the only way to collect data was to be booked on seven day cruises. Now that was a blast!!

I was still at Penn State and directing the Capital Area Early Childhood Research and Training Institute when this project come to fruition and I still remember the day when I mentioned to the faculty and staff of the Institute that we had a new project. This always got them excited because it meant additional work for staff who were busy all the time. But when I started to describe this new project with Royal Caribbean, suddenly eyes of discontent turned to scenes of royal blue waters.

The staff of Royal Caribbean were first class and a joy to work with. I will not mention names because I have not asked their permission to include them in this blog but all of them from the Director of Global Security to the Captains of the Ships were all highly professional.

The other wonderful outcome of this project was that the standards we developed a portion of them were adopted by the CLIA – Cruise Line International Association for all Youth Sponsored Programs for all their members which numbered about 30 cruise lines. I wished getting standards adopted were as easy for early care and education back in the states.

ECPQI2M Research Articles

Monday, April 09, 2018

The following three journal articles published in 2013, 2015, and 2017 focus on the key components of ECPQI2M – Early Childhood Program Quality Improvement and Indicator Model in regulatory program compliance (1IJCCEP), program quality via Quality Rating & Improvement Systems (QRIS)(2ECRQ), and Early Care and Education professional development (3JPEDHC).

- 1IJCCEP
- 2ECRQ
- 3JPEDHC

Richard Fiene, Ph.D., Senior Research Psychologist, Research Institute for Key Indicators (RIKILLC), Professor of Psychology (ret), Penn State University, & Senior Consultant, National Association for Regulatory Administration (NARA).

Contact Dr Fiene at Fiene@RIKInstitute.com or RFiene@NARALicensing.org or rjf8@psu.edu

Assorted Flyers and Brochures Describing RIKILLC, ECPQI2M, KI, QI, ...

Tuesday, April 17, 2018

Here are an assortment of flyers and brochures developed by the Research Institute for Key Indicators LLC (RIKILLC) and the National Association for Regulatory Administration (NARA) describing the Early Childhood Program Quality Improvement and Indicator Model (ECPQI2M), Key Indicators (KI), Quality Indicators (QI), Risk Assessment (RA), and Differential Monitoring (DM).

- Research Institute for Key Indicators LLC (RIKILLC) Flyer
- National Assocation for Regulatory Administration (NARA) Brochure
- NARA Key Indicator Brochure
- Key Indicator Systems Flyer
- Targeted Measurement Tools Flyer
- Parents Guide to Child Care

Ordinal Scaling in Licensing Measurement

Monday, April 30, 2018

I have attached a short technical paper (TRC Ordinal Scale Licensing Measurement) on moving from the predominant licensing measurement paradigm which measures rules and standards at a nominal scale level to an ordinal scale level. By introducing this alternate paradigm for licensing measurement it opens up many avenues of analyses, changes in how licensing decision making is done, and potentially combines licensing and quality measurement as one system rather than two systems as it exists now. This last point will be very controversial because of the existing standards and measurement system that has separate systems for licensing and quality rating & improvement systems (QRIS). Both systems have their own staffs, infrastructure, rewards, and sanctions when monitoring the rules and standards in each of the respective systems. The proposal presented in this paper is to have just one system, with one staff, one infrastructure that provides a continuum from regulatory compliance to program quality based upon selected licensing key indicators and quality key indicators that represent specific rules and standards. This will be the first in several technical papers to develop this concept more fully.

Pubs, Docs, Pres for State Licensing Administrators

Sunday, May 06, 2018

Here are a series of publications, documents, technical notes, and slides for licensing administrators related to licensing measurement & systems, and regulatory compliance to keep in mind as they design and implement their monitoring systems:

- LICENSING MEASUREMENT CHAPTER2
- Instrument-Based Program Monitoring for Child Welfare
- ECPQIM Overview
- ECPE for State Licensing Administrators
- 1ECPQIM PRESENTATION
- 1bTRC Technical Research Notes
- 1aTRC Technical Research Notes
- 1995 ZTT

Fiene Algorithm for Generating Regulatory Compliance Key Indicators...

Thursday, June 07, 2018

Here is the most recent simplified version of the Fiene Algorithm for Generating Regulatory Compliance Key Indicators (RCKI)

1. Add up regulatory non-compliances for all programs, agencies, jurisdictions, etc…
2. Review Regulatory Compliance history sorted from high to low
3. Nominal (Compliance(1)/Non-Compliance(0)) or ordinal measurement (Gradient(1-5)) scaling
4. Take Risk Assessment Weighting (1-9) into account and apply to nominal or ordinal scaling.
5. Top 25% (High Group) and bottom 25% (Low Group) of regulatory compliance scores
6. Drop out the middle 50% of regulatory compliance scores
7. Develop a 2 x 2 matrix which includes each regulation by the High Group and Low Group
8. Cells of the Matrix: A = High Group + Programs in Compliance on Specific Regulation
9. B = High Group + Programs out of Compliance on Specific Regulation
10. C = Low Group + Programs in Compliance on Specific Regulation
11. D = Low Group + Programs out of Compliance on Specific Regulation
12. W = Total Number of Programs in Compliance on Specific Regulation
13. X = Total Number of Programs out of Compliance on Specific Regulation
14. Y = Total Number of Programs in High Group.
15. Z = Total Number of Programs in Low Group
16. Use the following formula: ((A)(D)) – ((B)(C)) / sqrt ((W)(X)(Y)(Z)) = RCKI
17. Result will range from –1 to +1
18. +.5 to +1.0 will be included as Regulatory Compliance Key Indicators (RCKI). All other regulations will not be included.

Regulatory Compliance Skewness and Scaling for Decision Making

Thursday, June 14, 2018

Here are two technical research notes/short papers on regulatory compliance skewness and scaling for decision making. The first note deals with the issues associated with the terrible skewness found in regulatory compliance data while the second research note proposes a scale that could potentially be used for making licensing decisions based upon the results from the first research note.

1. Regulatory Compliance Skewness
2. Regulatory Compliance Decision Making Scale

NARA's Key Indicator System: Facilitated Dialogues this F...

Thursday, June 14, 2018

Key Indicator System: Facilitated Dialogues this Friday, June 15th

Join Dr. Fiene and NARA at

3-4pm AT | 2-3pm ET | 1-2pm CT | 12-1pm MT | 11-12pm PT | 10-11am AKT

Child Care | Adult Care | Child Welfare

NARA is excited to present facilitated dialogues on Key Indicators with Dr. Rick Fiene, the father of the Key Indicator System. The Key Indicator System methodology applies across all licensing areas; these dialogues allow licensing professionals across child care, adult care, and child welfare to discuss the application and theory of Key Indicators as they increase efficiency and effectiveness of existing licensing systems.

2018 Meeting Details

Months: March, June, and September
Duration: 60 minutes
Date/Time: June 15 at 2-3pm ET

Every effort will be made to find a date that works for all participants, however, if you cannot join a meeting: 1) you may submit questions in advance for Dr. Fiene to answer, and 2) NARA will send you the discussion recording.

September's meeting will be held *both* in person for those attending seminar and via conference call line.

Meeting recordings will be made available to participants.

Participants will be given access to a Community Forum to continue discussion and ask

questions between meetings.

Additional meetings into 2018 and beyond will be determined as the group sees fit.

To Join this Group

Complete registration and payment for the 2018 Facilitated Dialogues Package – three (3) 60-minute meetings in 2018 to learn from Dr. Fiene and ask questions specific. You may join this group after it begins in March; you will be sent the recordings for meetings missed.

Register here

Member cost:

Individual and Organizational: $75 per person (breaks down to $25 per session)

Retiree & Student: $60 per person (breaks down to $20 per session)

Non-member cost: $120 per person (breaks down to $40 per session)

About Dr. Rick Fiene

Dr. Fiene has spent 40+ years in developing and improving Key Indicator, risk assessment and differential monitoring methodologies. After a long career in Pennsylvania State Government as a research psychologist and the Pennsylvania State University as a professor of psychology, in 2013 he created the Research Institute for Key Indicators (RIKI) in order to consolidate all research on differential monitoring. Most recently RIKI has entered into a strategic partnership with NARA on the future development of Key Indicators, risk assessment and differential monitoring to all human services.

NARA's Key Indicator Facilitated Dialogues to Continue at...

Saturday, June 16, 2018

The second NARA Key Indicator Facilitated Dialogues session was held yesterday (June 15, 2018) in which Dr Fiene discussed the evolution of the Early Childhood Program Quality Improvement and Indicator Model, the Differential Monitoring Logic Model and Algorithm, and his latest Regulatory Compliance research. The third session in this series will be offered at ***NARA's Licensing Seminar to be held in Williamsburg, Virginia, September 24-26, 2018.***

NARA will be highlighting, in addition to the Facilitated Dialogues, several sessions on Key Indicators for participants. Dr Fiene will be presenting with Dr Sonya Stevens on the innovative work Dr Stevens has been doing in the State of Washington related to key indicators, risk assessment, differential monitoring, and regulatory compliance. ***For those who are interested in NARA's Licensing Seminar, please go to their website. If interested in the Facilitated Dialogues, please go to the following website – http://www.naralicensing.org/key-indicator-facilitated-dialogues.***

Caring for Our Children Basics

Monday, June 25, 2018

Caring for Our Children Basics has fallen off the radar screen when it comes to monitoring, regulatory compliance and standards development in early care and education (ECE). This is a very important set of standards that has distilled the most critical standards from several significant national documents. ACF had intended its use as a basic voluntary set of standards for all ECE programs. I really don't want state licensing administrators to lose sight of this document as they think through and revise their state ECE rules/regulations.

Here is a link to the ACF Webpage: Caring for Our Children Basics ACF Webpage

Here is the document itself: Caring for Our Children Basics Document

Here is the tool that accompanies *Caring for Our Children Basics*: CFOCB Tool

Generic Key Indicators from Regulatory Compliance, Professional Dev...

Monday, June 25, 2018

I get asked all the time what are the most salient generic key indicators from all the various sectors of the early care and education system, such as regulatory compliance/licensing, professional development and quality rating improvement systems (QRIS). I have mentioned in this blog over the years that I have maintained a national data base for an Early Childhood Program Quality Improvement and Indicator Model (ECPQI2M) for the past 40 years which has data from these major systems. In these systems I have generated key indicators over the decades to look at trends and what were the most important standards that statistically predicted quality and child outcomes. In the past, these key indicators have focused more on regulatory compliance/licensing and have appeared in ACF and ASPE publications. More recently, I have been able to apply the same key indicator methodology to professional development and QRIS system. So here is the list of the ***seven generic key indicators*** from these various systems in addition to regulatory compliance/licensing that we should focus on:

1. ***All children are properly immunized (licensing)***
2. ***Teachers & Director have ECE degrees (licensing)***
3. ***Competent supervision at all times (licensing)***
4. ***Families are fully engaged (QRIS)***
5. ***Coaching occurs (professional development)***
6. ***Teacher's guide children's behavior (QRIS and Environmental Rating Scales)***
7. ***Teacher's respond to children's communication (QRIS and Environmental Rating Scales)***

A Parent's Guide to Choosing Safe and Healthy Child Care

Saturday, July 07, 2018

For those who follow my RIKI Website and Blog, I have in two previous RIKI Blogs posted ***Generic Key Indicators for Early Care and Education*** and ***Caring for Our Children Basics*** for state administrators. In this blog, I want to post a guide (A Parent's Guide for Choosing Safe and Healthy Child Care) that has been around a long time and disseminated all over the world and is based upon 40 years+ of research in which the indicators within the guide have been studied extensively in a host of replication studies. I would recommend parents to use it when visiting potential child care programs before making a final decision on where they would want their child cared for, or for parents who have their children in child care already. For others, who follow this blog, please share with parents who may be making a child care decision. As I said above, what is unique about this parent's guide is the number of replication studies that have been completed validating the indicators within the guide.

Two Newspaper Articles on Unlicensed Child Care and Home Based Chil...

Friday, July 13, 2018

The following two links provide interesting newspaper articles for parents and policy makers that fit nicely with my two previous blog posts on ***Caring for Our Children Basics*** and the ***Parent's Guide to Choosing Safe and Healthy Child Care.***

Unlicensed Child Care

http://www.theintell.com/news/20180712/hiding-in-plain-sight-pennsylvania-turns-blind-eye-to-unlicensed-child-care/1

Home Based Child Care

http://www.theintell.com/news/20180712/bristol-township-home-child-care-providers-explain-why-state-licensing-matters/1

ECPQIM – Early Childhood Program Quality Improvement and ...

Tuesday, July 31, 2018

Here is the article and comprehensive data base for the ***Early Childhood Program Quality Improvement and Indicator Model (ECPQIM)*** I have been suggesting to use as a systems approach for monitoring and evaluating early care and education programs.

- ECPQIM – Early Childhood Program Quality Improvement and Indicator Model Article
- ECPQIM – Early Childhood Program Quality Improvement and Indicator Model Data Base

Validation of Regulations in Three States Using Stepping Stones to ...

Tuesday, July 31, 2018

The past several posts to this blog have dealt with standards, rules/regulations, ***Caring for Our Children***, and unlicensed child care. This specific post presents some initial analyses of doing a validation study of regulations in three states using as the national comparison tool ***Stepping Stones to Caring for Our Children (Stepping Stones). Stepping Stones*** is a risk assessment listing of standards taken from the larger ***Caring for Our Children*** book which focuses only on those standards that place children at greatest risk of morbidity and mortality.

In doing this validation study I assumed that there would be a high agreement between the 122 ***Stepping Stones*** standards and the respective regulations in the three states. Oh, was I ever disappointed!! There was **50% to 67%** agreement between the ***Stepping Stones*** standards and the respective state regulations which means a gap of one-half to one-third. Please keep in mind that these are standards that if they are not met place

children in the greatest risk of mortality and morbidity. Very sobering to say the least.

Washington State's Early Care & Education Researc...

Monday, August 20, 2018

It is with great excitement that I share with you today two very significant publications from the **Washington State's Department of Children, Youth and Families** which outline their research agenda for licensing of early care and education programs. These publications are ground breaking in that they address many of the key systemic issues that states are dealing with related to licensing and program quality today.

These publications provide a state example of how best to apply public policy analysis to regulatory and standards development, validation and implementation. They provide a blueprint to follow as state administrators deal with the complex task of rule formulation within the context of differential monitoring involving risk assessment and key indicators. Washington State has provided actual study examples to Zellman and Fiene's (2012) *Conceptual Framework for Validation* by applying it to licensing and regulatory compliance.

Washington staff have creatively utilized legislation to align several sets of standards, a goal that has had difficulty coming to fruition in many other states. This is a public policy approach that is both cost effective and efficient. Building upon this base, they have been able to craft a plan to test both validity and reliability of the data and decisions being made related to regulatory compliance, program quality and child outcomes.

- Washington State's Research Agenda
- Washington State Research Agenda Supplemental Material

Washington State has always been a leader in utilizing *NARA's Key Indicator Methodology* as being one of the first states to fully implement such a system by utilizing the *Fiene Indicators* as part of their abbreviated tools. Washington State staff continue to work with the **National Association for Regulatory Administration (NARA)** and the **Research Institute for Key Indicators (RIKI)** in building and refining their differential monitoring system.

Theory of Regulatory Compliance Models

Saturday, August 25, 2018

Attached to this blog is a technical research note outlining the three theory of regulatory compliance models that have been used over the past 40 years describing the essence of this theory. It is interesting to note that the three models moved from a linear relationship to a non-linear relationship to a tiered relationship between individual key indicators and overall regulatory compliance & program quality.

Here is the technical research note with graphic displays:

Theory of Regulatory Compliance Models

National Association for Regulatory Administration's Lice...

Wednesday, September 19, 2018

The National Association for Regulatory Administration's Licensing Seminar was held in Williamsburg, Virginia from September 24-26th along with the Expert Licensing Panel hosted by the National Center for Early Childhood Quality Assurance from September 26th-27th.

Here is the URL – NARA Licensing Seminar and the schedule – NARA Seminar – Schedule at a Glance

Response to a presentation from the Seminar: LinkedIn

My colleague, Dr Sonya Stevens, after our joint presentation on the Theory of Regulatory Compliance at the NARA Licensing Seminar:

Follow-Up Detail to the Three State Standards Validation Using Step...

Wednesday, October 03, 2018

Below I have a hotlink to a chart and graphic display which provides additional detail to an earlier RIKI Blog post on a three state standards validation study using ***Stepping Stones to Caring for Our Children***. The chart provides the specific number of standards by the major categories within ***Stepping Stones to Caring for Our Children***. This gap analysis provides a template/model for doing these types of analyses with all states and jurisdictions. I would encourage states and jurisdictions to do this type of validation gap analysis related to validating their rules in comparison to ***Stepping Stones to Caring for Our Children***.

Three State Standards Validation Study by Fiene & Stevens

For additional information about this validation study, please don't hesitate to contact: ***Dr Richard Fiene, Psychologist/Principal Investigator, Research Institute for Key Indicators (http://RIKInstitute.com) (Fiene@RIKInstitute.com). Dr Sonya Stevens, Washington State Licensing Analyst was Co-Principal Investigator.***

Child Care Licensing Study Trend Analysis

Wednesday, October 03, 2018

After returning from a stimulating week at the National Association for Regulatory Administration's (NARA) Licensing Seminar and the Expert Licensing Panel hosted by NARA and the National Center for Early Childhood Quality Assurance (NCECQA), I learned about a new resource made available by the Child Care and Early Education Research Connections (CCEERC). The resource makes all the data over the past decade from the ***Child Care Licensing Studies*** conducted by NARA and NCECQA available as SPSS data files. I started to mine these data as soon as I got back and plan on posting several blogs on this website over the winter months looking at trends in the data over the past decade.

There are five data points from 2005 – 2014. The data base provides a national window into child care licensing in both center based and home based care. I will start with the centers data base and then move to the home data bases. Here is my first look at the center data base related to licensed capacity, number of centers and average size of centers. As I said, I will be selecting variables and posting results overtime looking at trends over the five data points. If anyone has any pressing questions that they are

interested in seeing how things have changed over the past decade, please don't hesitate to get in touch with me at *Fiene@RIKInstitute.com*.

Child Care Licensing Study CCC Licensed Facilities 2005-2014

The Importance of Immunizations

Thursday, December 06, 2018

Having children properly immunized is a very important goal within public health. It helps to protect children's health. Within early care and education programs, immunizations are both a standard of care as well as an outcome of that care. Recently, as I have been doing additional in-depth analyses of the national data base that RIKILLC – Research Institute for Key Indicators maintains, having children properly immunized has been and continues to be a key indicator rule that statistically predicts overall regulatory compliance with all early care and education rules. This is a result that appeared in the research literature over 40 years ago and is still present in today's analyses. It helps to account for approximately 70% of the variance related to statistically predicting regulatory compliance. These results are across the USA and Canada.

So why is an immunization standard or rule such a good discriminator of high performing early care and education programs. Keeping track of children's immunizations is not an easy task. It is very detailed-oriented which takes a great deal of diligence on the individuals doing the tracking. One can assume that the best programs have figured this out while the mediocre programs who have difficulty with regulatory compliance have not.

Evolution of Differential Monitoring

Thursday, December 13, 2018

Attached please find a Technical Research Note on the Evolution of Differential Monitoring with special emphasis on Key Indicators and Risk Assessment.

Evolution of Differential Monitoring

Theory of Regulatory Compliance and Quadratic Regression

Tuesday, December 25, 2018

Here is a RIKIIIc brief technical research note on the Theory of Regulatory Compliance and quadratic regressions:

Theory of Regulatory Compliance and Quadratic Regression

Data Distributions for the Major ECE Systems: Licensing, QRIS, and ERS

Saturday, January 05, 2019

I thought it important to share with researchers who may be doing ECE research on Licensing, QRIS – Quality Rating and Improvement Systems, and ERS – Environmental Rating Scales. Usually when we are doing research, we find the data to be normally distributed which is the case with ERS data sets. However, in dealing with Licensing and QRIS data sets, this is not the case. With Licensing data we find the data distributions to be highly skewed and with QRIS data we find the data distributions to be either bi-modal or highly skewed depending on if only the QRIS sites are used or the full complement of sites statewide. Attached is a brief technical research note which depicts these data distributions for consideration when doing future research by licensing researchers.

Data Distributions for Licensing QRIS and ERS

Relationship between Regulatory Compliance and Complaints in a Huma...

Monday, January 14, 2019

What is the Relationship between Regulatory Compliance and Complaints

Richard Fiene, Ph.D.

January 2019

Within licensing measurement and the validation of licensing systems it is particularly difficult to have specific outcome metrics that can be measured within a human services licensing system. The purpose of this technical research note is to propose a potential solution to this problem.

Probably the most accurate measures of licensing outcomes focus on improvements in the health and safety of clients within human services licensed facilities, such as: fewer injuries (safety) or higher levels of immunizations (health). Another measure related to client satisfaction is the number of complaints reported about a licensed facility by clients and the general public. The advantage of using complaints is that this form of monitoring is generally always part of an overall licensing system. In other words, the state/provincial licensing agency is already collecting these data. It is just a matter of utilizing these data in comparing the number of complaints to overall regulatory compliance.

The author had the opportunity to have access to these data, complaint and regulatory compliance data in a mid-Western state which will be reported within this technical research note. There are few empirical demonstrations of this relationship within the licensing research literature. The following results are based upon a very large sample of family child care homes (N = 2000+) over a full year of licensing reviews.

The results of comparing the number of complaints and the respective regulatory compliance levels for specific family child care homes proved to show a rather significant relationship ($r = .47; p < .0001$). This result is the first step in attempting to understand

this relationship as well as developing a methodology and analysis schema since directionality (e.g., did the complaint occur before or after regulatory compliance data collection?) can play a key role in the relationship (this will be developed more fully in a future technical research note). The focus of this research note was to determine if any relationship existed between regulatory compliance and complaint data and if it is worth pursuing.

It appears that looking more closely at the relationship between complaint and regulatory compliance data is warranted. It may provide another means of validating the fourth level of validation studies as proposed by Zellman and Fiene's OPRE Research Brief (*Zellman, G. L. & Fiene, R. (2012). Validation of Quality Rating and Improvement Systems for Early Care and Education and School-Age Care, Research-to-Policy, Research-to-Practice Brief OPRE 2012-29. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services*) in which four approaches to validation are delineated for Quality Rating and Improvement Systems (QRIS). This author has taken this framework and applied it to licensing systems (F *iene (2014). Validation of Georgia's Core Rule Monitoring System, Georgia Department of Early Care and Learning*) and more recently proposed as the framework for Washington State's Research Agenda (*Stevens & Fiene (2018). Validation of the Washington State's Licensing and Monitoring System, Washington Department of Children, Youth, and Families).*

For additional information regarding the above studies, the interested reader should go to **RIKInstitute.com.**

Richard Fiene, Ph.D., Professor of Psychology (ret), Penn State University; Senior Research Consultant, National Association for Regulatory Administration (NARA); and Research Psychologist, Research Institute for Key Indicators (RIKIllc).

Some Technical Considerations in Using Complaint Data and Regulator...

Monday, January 14, 2019

Some Technical Considerations in Using Complaint Data and Regulatory Compliance Data: RIKIIIc Technical Research Note #66

Richard Fiene, Ph.D.

January 2019

As promised in RIKIIIc Technical Research Note #65, this Note will provide details on the and analytical considerations when using complaint and regulatory compliance data together. As pointed out in the previous technical research note, using complaint data as a potential outcome appears to have merit and should be explored in greater detail. However, with that said there are some parameters that the methodology has that should be explored in order to make the analyses more meaningful.

When looking at regulatory compliance and complaint data there are four possibilities: 1) the facility is in full compliance and has no complaints; 2) the facility is in full compliance but has complaint(s); 3) the facility has some non-compliance and has no complaints; and 4) the facility has some non-compliance and has complaint(s). These four possibilities can be depicted in a 2 x 2 matrix:

Cell C = Full Compliance & No Complaints; Cell A = Full Compliance & Complaints (False Negative): Cell B = Non-Compliance & No Complaints; Cell D = Non-Compliance & Complaints. (*See the attached Technical Research Note for a clearer picture of the 2 x 2 Matrix*).

In the this 2 x 2 matrix, we would want to see cell C and cell D as the predominant cells and cell A and B as the less dominant cells, especially cell A because this represents a false negative result.

However, there are a couple of limitations to the above matrix that need to be taken into account. One, are the complaints substantiated or not. Any complaint must be substantiated to be counted in the model. If it is unsubstantiated, than it is not counted in the matrix. Two, there is the problem with directionality that needs to be addressed. For example, does the complaint occur before or after the full inspection in order to determine regulatory compliance. The 2 x 2 matrix and the modeling for these
analyses is based on the complaint occurring after the full inspection and that is the reason for cell A being labeled a false negative. If the directionality is reversed and the full inspection occurs after a complaint, cell A is no longer a false negative.

RIKI Technical Details

Boston Globe Article

Monday, January 21, 2019

The following article appeared in the Boston Globe this morning:

With New Day-Care Inspection System, High Caseloads and Shorter Visits – The Boston Globe

Dissertation on the Effectiveness CCR&R Services Using a Co...

Tuesday, January 29, 2019

Here is an interesting Early Care and Education Dissertation completed by a doctoral student at the University of South Carolina, Wenjia Wang. “The purposes of this study were to investigate the significance of the impact of CCR&R services using a coaching model on licensing compliance outcomes at child care centers and to further our knowledge on the use of coaching to improve health and safety conditions in child care environments.”

A Quasi-Experimental Study on the Effectiveness of CCRR TA Coach

The Relationship between Regulatory Compliance and Quality Initiati...

Friday, February 01, 2019

The Relationship between Early Care & Education Quality Initiatives and Regulatory Compliance: RIKIIIc Technical Research Note #67
Richard Fiene, Ph.D.
February 2019

Over the past couple of decades there has been many early care and education initiatives, such as Quality Rating and Improvement Systems (QRIS), Professional Development, Training, Technical Assistance, Accreditation, and Pre-K programs to just name a few. Validation and evaluation studies have begun to appear in the research literature, but in these studies there has been few empirical demonstrations of the relationship between these various quality initiatives and their impact on regulatory compliance or a comparison to their respective regulatory compliance. This brief technical research note will provide examples of these comparisons taken from the Early Childhood Program Quality Improvement and Indicator Model (ECPQI2M) Data Base maintained at the Research Institute for Key Indicators (RIKIIIc).

I have written about this back in 2014 (Fiene, 2014) in how the various quality initiatives were having a positive impact on the early care and education delivery system but at that point regulatory compliance data were not available. Today, in 2019, with many changes and developments in state data systems, this is no longer the case. Now it is possible to explore the relationships between data from the various quality initiatives and licensing. Several states in multiple service delivery systems have provided replicable findings in which I feel comfortable reporting out about the relationships across the data systems.

What we now know is that there is a positive and statistically significant relationship between regulatory compliance and moving up the QRIS Quality Levels. In other words, facilities have higher compliance in the higher QRIS Quality Levels and lower compliance in the lower QRIS Levels or if they do not participate in their state's respective QRIS ($F = 5.047 – 8.694$; $p < .0001$).

Other quality initiatives, such as being accredited, shows higher compliance with licensing rules than those facilities that are not accredited ($t = 2.799 – 3.853$; $p < .005 – .0001$).

This is a very important result clearly demonstrating the positive relationship between regulatory compliance and quality initiatives. I have some additional state data sets that I will add to the ECPQI2M data base and will continue to analyze these relationships and post additional RIKIIIc Technical Research Notes.

Richard Fiene, Ph.D., Senior Research Consultant, National Association for Regulatory Administration; Psychologist, Research Institute for Key Indicators; and Affiliate Professor, Prevention Research Center, Penn State University, Professor of Psychology (ret), Penn State University. (http://rikinstitute.com).

NARA Presentation in Indiana on Differential Monitoring and Key Ind...

Friday, February 15, 2019

NARA – National Association for Regulatory Administration conducted a presentation in Indiana on differential monitoring and key indicators (February 14, 2019). Please go to the following Facebook Live link to see the presentation:

Facebook Live Link

Updating the Theory of Compliance with Big Data Analysis via the Ke...

Monday, February 25, 2019

There is a major movement within the human services involving big data where rather than selecting samples to do analyses state/provincial agencies have the capability to provide basically population data. For the Theory of Regulatory Compliance as it involves the Licensing Key Indicator Methodology, selection criteria and the dichotomization of data are changing dramatically because of the increased cell sizes in determining and generating the Licensing Key Indicators.

For example, in the past, the Licensing Key Indicator Methodology always utilized a 25/50/25 dichotomization model for segregating high compliance from low compliance facilities. However, with big data being available, cell sizes are much more robust in which this dichotomization model can be increased to 12.5/75/12.5. The move to this model helps to decrease the number of false negatives while at the same time increasing phi coefficients. By doing this, the Licensing Key Indicators generated are very robust and highly predictive.

The following Licensing Key Indicators continue to be identified in state/provincial analyses and results (all these Indicators are from the original *ASPE Research Brief: 13 Indicators of Quality Child Care*):

- Proper Supervision,
- Children are properly immunized,
- The facility is hazard free,
- Reporting of child abuse, and
- Staff are trained in CPR and first aid.

Child Care Aware of America's Child Care Licensing Databa...

Monday, March 04, 2019

Child Care Aware published a very significant report (*Child Care Aware of America's Child Care Licensing Database: Initial Findings*) on state licensing throughout the USA. It builds upon their innovative reports " *We Can Do Better*". This new report series utilizes *Caring for Our Children Basics* as the comparison tool in looking at the state's licensing rules and monitoring systems. It is an absolutely brilliant approach to being able to look at state's rules from a national perspective and I applaud Child Care Aware for taking this on. Here is a copy of the report and links to their webpage which contains additional information about the child care licensing data base.

- Child Care Aware Licensing Report
- Child Care Aware Licensing Data Base Launch
- Child Care Aware Licensing Data Base

Richard Fiene, Ph.D., Research Psychologist, Research Institute for Key Indicators (RIKIllc); Professor of Psychology (ret), Penn State University; Affiliate Professor, Penn State Prevention Research Center; Senior Research Consultant, National Association for Regulatory Administration (NARA).

Effectiveness and Efficiency Relationship

Thursday, March 21, 2019

RIKI Technical Research Note #70 – Effectiveness and Efficiency Relationship with resultant Cost Benefit Analysis modeling based upon data from the Theory of Regulatory Compliance. This technical research note depicts a graphic display of the relationship between effectiveness and efficiency and how the intersection of these two can result in cost benefit analysis.

RIKI Effectiveness and Efficiency Relationship1

Dr Richard Fiene, Research Psychologist and Professor of Psychology (ret) at Penn State University is generally regarded as the leading international researcher/scholar on licensing measurement and systems. His theory of regulatory compliance has altered regulatory science and licensing measurement dramatically in thinking about how best to monitor and assess licensing rules and regulations.

Dr Fiene's measurement and monitoring methodologies have led to targeted or abbreviated inspections in all aspects of human service licensing thru risk assessment, key indicators and differential monitoring approaches. He has maintained an international data base on regulatory compliance for the past 40 years which is housed at the Research Institute for Key Indicators (RIKIllc) and the Pennsylvania State University and has led to the development of statistical techniques for dealing with highly skewed, non-parametric data distributions. His research has led to the following: identification of

herding behavior of two year olds, national early care and education quality indicators, mathematical model for determining adult child ratio compliance, Solution to the Trilemma in Child Care Delivery Services, Stepping Stones to Caring for Our Children, Online coaching as a learning platform, Validation framework for licensing systems, and an Early Childhood Program Quality Improvement Model.

He has written extensively on regulatory compliance in the human services and his research has been disseminated all over the world via his website (http://RIKInstitute.com). He presently directs the Research Institute for Key Indicators and is a senior research consultant with the National Association for Regulatory Administration, and is an Affiliate Professor with the Edna Bennett Pierce Prevention Research Center, Consultant to the College of Medicine at Penn State Hershey and the College of Ag. Sciences at Penn State University.

New Saskatchewan and NARA Project Demonstrating the Efficacy of ECP...

Friday, April 05, 2019

It is exciting to announce a new differential monitoring project in the Province of Saskatchewan, Canada being done by NARA – National Association for Regulatory Administration. This project will assist the Ministry of Education in developing a full blown differential monitoring system with key indicators, risk assessment rules, and quality indicators along with the validation of each. It will be a full evaluation of the ECPQIM – Early Childhood Program Quality Improvement and Indicator Model (please see the following webpage (https://rikinstitute.com/ecpqim/) for additional details about the model. This project will get back to the original purpose of differential monitoring in providing a balance between licensing indicators and quality indicators being used in tandem during abbreviated monitoring reviews. This approach of combining key indicators with risk assessment rules focuses on children's health, safety and well-being developmentally.

I will be providing updated RIKI Notes as we move along with the project delineating the various phases.

Dr. Philip Zimbardo gives talk at Penn State Harrisburg

Saturday, April 20, 2019

Dr. Philip Zimbardo is an influential psychologist best-known for his 1971 Stanford prison experiment. Many psychology students may also be familiar with his psychology textbooks and the *Discovering Psychology* video series often used in high school and psychology classrooms. Zimbardo is also the author of several notable books including *The Lucifer Effect*.

I had the distinct honor to be invited to a dinner hosted by the Penn State psychology faculty for Dr. Zimbardo this week. Here is a photo of Dr. Zimbardo and the faculty & guests.

iLookOut Child Abuse Prevention Program: An Online Learning Program...

Friday, April 26, 2019

The ***iLookOut Child Abuse Prevention*** program has clearly demonstrated that it significantly improves knowledge about abuse, and attitudes regarding what is needed to protect children from harm and has resulted in individuals feeling better prepared to respond to child maltreatment. Now it has also been demonstrated that ***iLookOut*** improves reporting to child protective services, with significantly more reports resulting in findings of abuse and/or referral for social services. Here is an Infographic describing the program and its significant results.

iLookOut Infographic

Journal of Regulatory Science: A Treatise on Regulatory Compliance

Monday, May 13, 2019

The ***Journal of Regulatory Science*** is publishing " *A Treatise on the Theory of Regulatory Compliance (Fiene TRC JRS 7 2019)"* this month (Volume 7)(doi.org/10.21423/jrs-v07fiene). This article presents the latest research and thinking in how this theory impacts regulatory science and compliance within social and economic regulations. Here is the link to the ***Journal of Regulatory Science,*** look under ***Policy Commentaries:***

Journal of Regulatory Science, Volume 7(1)

or just go directly to the article

(doi.org/10.21423/jrs-v07fiene)

Dr Richard Fiene, Research Psychologist and Professor of Psychology (ret) at Penn

State University is generally regarded as the leading international researcher/scholar on licensing measurement and differential monitoring systems. His theory of regulatory compliance has altered regulatory science and licensing measurement dramatically in thinking about how best to monitor and assess licensing rules and regulations.

Dr Fiene's measurement and monitoring methodologies have led to targeted or abbreviated inspections in all aspects of human service licensing thru risk assessment, key indicators and differential monitoring approaches. He has maintained an international data base on regulatory compliance for the past 40 years which is housed at the Research Institute for Key Indicators (RIKIIIc) and the Pennsylvania State University and has led to the development of statistical techniques for dealing with highly skewed, non-parametric data distributions. His research has led to the following: identification of herding behavior of two year olds, national early care and education quality indicators, mathematical model for determining adult child ratio compliance, Solution to the Trilemma in Child Care Delivery Services, Stepping Stones to Caring for Our Children, Online coaching as a learning platform, Validation framework for licensing systems, and an Early Childhood Program Quality Improvement Model.

He has written extensively on regulatory compliance in the human services and his research has been disseminated all over the world via his website (http://RIKInstitute.com). He presently directs the Research Institute for Key Indicators and is a senior research consultant with the National Association for Regulatory Administration, and is an Affiliate Professor with the Edna Bennett Pierce Prevention Research Center, Consultant to the College of Medicine at Penn State Hershey and the College of Ag. Sciences at Penn State University.

Exchange Leadership Initiative

Monday, May 20, 2019

I got this wonderful news today, it is truly an honor to be included:

Dear Rick,

Congratulations – you have been chosen to be an Exchange Leader. *You will be included in the article featuring our newest Exchange Leaders in the* ***July/August issue of Exchange magazine.***

The ***Exchange Leadership Initiative (ELI)*** *launched in November 2014, with the intention of making leadership more visible in the field of Early Care and Education. Our early childhood field has strong leaders who accomplish the important work of educating young children, as well as supporting and advocating for children, their families, and their communities. Exchange Leaders are everywhere, doing powerful work in their communities, regions and across the world.*

You are joining the more than 300 current Exchange Leaders. Your passion for the field and your commitment and perseverance over the years is important to the work we all do. I welcome you and look forward to working with you.

Sincerely,

Pam Boulton, Ed.D.

Coordinator, Exchange Leadership Initiative

News from the Edna Bennett Pierce Prevention Research Center at Pen...

Thursday, May 23, 2019

Here is the latest news (May 23, 2019) from the Edna Bennett Pierce Prevention Research Center at Penn State University highlighting events, faculty, staff, students, and affiliates.

News and Updates from PRC Faculty, Staff, Students and Affiliates

iLookOut to appear in the Journal of Early Child Development and Care

Saturday, June 08, 2019

A description of the **iLookOut Program for Child Abuse Prevention** will appear in the ***Journal of Early Child Development and Care***.

It was published online yesterday, June 7, 2019. Below is the journal *eprint.*

Ilookout for child abuse conceptual and practical considerations in creating an online learning programme to engage learners and promote behaviour

Preparation for Washington State's Validation Study Kick ...

Monday, June 17, 2019

I am in the midst of preparing to fly to Seattle next week to be part of the **Washington State's Validation Study Kick Off (NARA WA Validation)** meetings in Olympia. This is a really big deal in early care and education licensing because the state is expanding the use of weighted risk assessment in making licensing decisions. In the past, weighted risk assessment has been used for making determinations about individual rules or regulations and about the frequency of monitoring visits. Washington state's licensing office has always been at the forefront of monitoring innovations in being one of the first states to utilize licensing key indicators which has been part of their overall differential/abbreviated monitoring for many years now. According to my records, they have the longest running use of licensing key indicators than any other state or province.

Washington has been working with the **National Association for Regulatory Administration** on their weighted risk assessment project for the past couple of years and the next 1-2 years will be devoted to validating their approaches. The interested reader can find out more details about *Washington's Research Agenda* by going to **RIKInstitute.com.** I will also be providing updates over the next couple of weeks during my time in Seattle and Olympia. This is another major step in moving the regulatory science field forward when it comes to regulatory compliance, licensing measurement, and differential monitoring systems.

An interesting discussion during my time in Washington (RAM1)(NARA WA Validation PPT).

nara
RIKI

Capital Area Early Childhood Training Institute Reunion

Thursday, June 27, 2019

We had a wonderful reunion of many of the staff and faculty from Penn State CAECTI – Capital Area Early Childhood Training Institute. It was wonderful seeing everyone again. Here is a picture from the reunion.

A Theory of Early Childhood Outcomes

Tuesday, July 09, 2019

Attached is a technical research note/abstract (RIKInote #75) on proposing a theory of early childhood outcomes based upon the combined impacts of professional development, program quality, and regulatory compliance. This is an attempt to combine these major systems into a single unified equation in determining their relative weights for early childhood outcomes. This is a controversial proposal but one based upon 50 years of research and empirical evidence, all taken from the Research Institute for Key Indicators' Early Childhood Program Quality Improvement and Indicators Model data base.

TECO Fiene July 2019a

Exchange Leadership Initiative – New Exchange Leaders Ann...

Thursday, July 18, 2019

The July-August 2019 Issue of the ***Child Care Exchange*** Magazine was just published and I have the distinct honor to be included as one of the new Exchange Leaders announced in this edition of the magazine. I feel humbled to be included with such a wonderful group of ECE professionals who are doing great work with young children.

Attached is the article that appeared in the magazine announcing the new Exchange Leaders and the Exchange Leader Webpage site:

Exchange Leadership Initiative Article

The Exchange Leaders

Economic Application Utilizing the Theory of Regulatory Compliance

Thursday, August 08, 2019

Here is an article published in the ***Academic Journal of Economic Studies*** utilizing the Theory of Regulatory Compliance (Fiene, 2016; 2019). The study appraises the quality of compliance upheld by selected Nigerian and Ghanaian manufacturing companies to minimum disclosure requirements of IFRS during financial reporting. Hence, it determines whether any significant difference exists in the compliance quality of the post IFRS Financial Statements prepared in Nigeria and Ghana in their first five years of IFRS adoption. It is an empirical study that is descriptively designed to pave room for the use of the content analysis scoring system as the core instrument for data collection.

The study recommends that a more robust regulatory oversight on companies' full compliance to IFRS disclosure requirements be upheld towards achieving a commendable level of comparison in both countries' IFRS Financial Statements as expected. More so, companies' consistent full compliance to IFRS requirements should hence be adopted as one of the prerequisites for there continued listing by the Nigerian and Ghana Stock Exchanges.

Academic Journal of Economic Studies

Three RIKI Technical Research Notes for Scientists, ECPQIM Data Dis...

Friday, August 09, 2019

Listed in this RIKINotes blog are three ***RIKIIIc Technical Research Notes*** for psychological scientists (geared for all scientists considering research with regulatory compliance data)(1), ECPQI2M (Early Childhood Program Quality Improvement and Indicator Model) data distributions(2), and proposed principles of regulatory compliance measurement(3). These three technical research notes help to further delineate the nuances and idiosyncrasies of regulatory compliance data, measurement, and analysis.

1. ***ECPQIM Regulatory Compliance Methods and Practices for Scientists***
2. ***ECPQIM DB Data Distributions***
3. ***Principles of Regulatory Compliance Measurement***

NARA Annual Licensing Seminar

Friday, September 20, 2019

The **National Association for Regulatory Administration (NARA)** annual licensing seminar is next week. It brings together key researchers, policy administrators, and licensing staff and administrators to discuss the latest developments in regulatory administration and science. Attached is an overview highlighting the presentations for the week. Please pay particular attention to the presentation by Lisa Clifford and Dawn Downer on ***Differential Monitoring Through Data Driven Decisions***. They have done a wonderful study in the state of Indiana in the development of a Licensing Key Indicator system and did some very interesting analyses in comparing licensing data with their QRIS system. Many jurisdictions can learn about very effective and efficient data utilization from their approach.

NARA Licensing Seminar 2019 Schedule of Presentations

CCDF Resource Manual and Differential Monitoring Algorithms

Friday, September 27, 2019

Below please find links to the ***CCDF Resource Manual*** which is a tremendous resource to state agency administrators as they are busy complying with the standards of the Child Care Development Fund. The Office of Child Care has done a wonderful job in putting in one place a ton of resources that are readily available.

The second link is a series of papers that present the algorithms for putting in place a differential monitoring system. It provides all the details for state agency Information Technology (IT) staff to get such a system up and running. Again it provides one stop shopping for state administrators if they are interested in developing such a system.

CCDF Fundamentals Resource Guide

Differential Monitoring Algorithm Papers

Public Library of Science PLOS One: The iLookOut Research Study

Saturday, January 11, 2020

Attached is the latest research article detailing the **iLookOut Study and Program, Penn State, College of Medicine, Center for the Protection of Children**:

Generalizing findings from a randomized controlled trial to a real-world study of the iLookOut, an online education program to improve early childhood care and education providers' knowledge and attitudes about reporting child maltreatment

Abstract

In recent years, real-world studies (RWS) are gaining increasing interests, because they can generate more realistic and generalizable results than randomized controlled clinical trials (RCT). In 2017, we published a RCT in 741 early childhood care and education providers (CCPs). It is the Phase I of our *iLookOut for Child Abuse* project (*iLookOut*), an online, interactive learning module about reporting suspected child maltreatment. That study demonstrated that in a RCT setting, the *iLookOut* is efficient at improving CCPs' knowledge of and attitudes towards child maltreatment reporting. However, the generalizability of that RCT's results in a RWS setting remains unknown. To address this question, we design and conduct this large RWS in 11,065 CCPs, which is the Phase II of the *iLookOut*. We hypothesize replication of the earlier RCT findings, i.e., the *iLookOut* can improve CCPs' knowledge of and attitudes toward child maltreatment reporting in a real world setting. In addition, this RWS also explores whether demographic factors affect CCPs' performance. Results of this RWS confirmed the generalizability of the previous RCT's results in a real world setting. It yielded similar effect sizes for knowledge and attitudes as were found in the earlier RCT. Cohen's d for knowledge improvement was 0.95 in that RCT, 0.96 in this RWS; Cohen's d for attitude improvement was 0.98 in that RCT, 0.80 in this RWS. Also, we found several significant differences in knowledge and attitude improvement with regard to age, race, education, and employment status. In conclusion, *iLookOut* improves knowledge and attitudes of CCPs about child maltreatment prevention and reporting in a real-world setting. The generalizability of the initial RCT findings to this RWS provides strong evidence that the *iLookout* will be effective in other real world settings. It can be a useful model for other interventions aimed at preventing child maltreatment.

PLOS One Public Library of Science Research Article

Fiene to Receive “VOICE for Children Distinguished Career...

Sunday, February 23, 2020

Dr Richard Fiene will be receiving a Pennsylvania Association for the Education of Young Children ***VOICE for Children Distinguished Career Award (PennAEYC Award Announcement)*** in April of this year. Dr Fiene’s career spans 5 decades from the early 1970’s until the present day. He has spent his professional career in improving the quality of early care and education in various states, nationally, and internationally both at the public policy and academic levels. He has done extensive research and publishing on the key components in improving child care quality through an innovative early childhood program quality indicator model of training, technical assistance, quality rating & improvement systems, professional development, mentoring/coaching, licensing, risk assessment, differential program monitoring, key indicators/regulatory compliance, and accreditation which has led to a cost effective and efficient approach to data utilization and child outcomes.

Dr Fiene is a retired professor of human development & psychology (Penn State University) where he was department head and founding director, along with Dr Mark Greenberg, of the Capital Area Early Childhood Research and Training Institute. He is presently President & Senior Research Psychologist for the Research Institute for Key Indicators which he founded in 2013 and continues consulting with early care & education agencies in the US, Canada, and beyond; and with the College of Medicine at the Penn State Medical Center in Hershey, the Prevention Research Center & Better Kid Care Program at University Park.

Dr Fiene is generally regarded as a leading international researcher/scholar on human services licensing measurement and differential monitoring systems. His regulatory compliance law of diminishing returns has altered human services regulatory science and licensing measurement dramatically in thinking about how best to monitor and assess licensing rules and regulations through targeted and abbreviated inspections.

His research has led to the following developments: identification of herding/clustering behavior in the developmental play patterns of two-year olds, preschool developmental

play patterns being applied to adult-child ratio regulatory compliance, national early care and education quality indicators, mathematical model for determining adult-child ratio compliance, solution to the trilemma in child care delivery services, *Stepping Stones to Caring for Our Children*, online mentoring/coaching as a targeted and individualized learning platform, the National Early Childhood Program Accreditation (NECPA), validation framework for early childhood licensing systems and quality rating & improvement systems, an *Early Childhood Program Quality Improvement Model*, Theory of Regulatory Compliance, *Caring for Our Children Basics: Health and Safety Foundations for Early Care and Education*, and to the development of statistical techniques for dealing with highly skewed, non-parametric data distributions in human services licensing systems (child care, child-residential, and adult-residential)(**National Association for Regulatory Administration (NARA) Key Indicators)**.

Emergency Child Care

Tuesday, March 24, 2020

Here is a concept paper on the need for emergency child care because of the COVID-19 pandemic and how best to meet the need:

CARING FOR OUR CHILDREN AND EMERGENCY CHILD CARE FOR ESSENTIAL WORKERS

The two papers mentioned in the above concept paper are posted here for your viewing:

Honor the Early Childhood Education Workforce

In the Eye of the Storm

And here is the URL to the LinkedIn Post by Peggy Pizzo on Emergency Child Care:

LinkedIn Post by Peggy Pizzo

Licensing Principles for Emergency Child Care

Thursday, April 02, 2020

Based upon conversations that have been occurring at the national level I wanted to share the following principles that I think apply to licensing of emergency child care: 1) We need to rethink the philosophy of “Do No Harm” and replace it with “Unavoidable Risks”. Emergency child care is in the eye of a perfect storm of risk and the best we will be able to do is reduce, but we will not be able to prevent the spread of this virus. 2) *Stepping Stones to Caring for Our Children,* the key standards from the larger set of *CFOC* standards that place children at greatest risk of mortality and morbidity need to be the reference point for licensing administrators as they think about regulating this new temporary service of emergency child care. 3) The most stringent adult-child ratios are critical in reducing the spread of the virus, following *CFOC Standard 3.6.2 (Child Care for Ill Children)* for ratios is recommended with the exception of babies under one year where a 1:1 ratio is recommended. 4) Adult-child ratio needs to be the new group size standard/rule in emergency child care. In other words, if the ratio is 3:1, the group size is 3 children, not 6 children. We need a new metric that measures contact hours. 5) Regulation of square footage, which generally averages 35 square feet in family child

care homes and child care centers, needs to be increased to 144 square feet in any setting (home, center, school, YMCA/YWCA, preschool, etc..) in order to abide by the distancing requirement of 6 feet.

Formulae for a Contact Hours Metric to be Used in Emergency Child C...

Sunday, April 05, 2020

In an earlier email posted on emergency child care, there was mention about the need to develop a new metric dealing with contact hours. The attached short technical research note provides a methodology for developing such a metric:

Since monitoring of programs will not be occurring during the COVID19 pandemic are there ways to measure compliance without actually needing to do observations in facilities, such as centers or homes. There is when it comes to adult child ratios and group sizes by using a metric which uses the number of contact hours (CH) and determining if there is any relationship to COVID19 infections. And it involves asking the following six questions:

1. **When does your first teaching staff arrive or when does your facility open?**
2. **When does your last teaching staff leave or when does your facility close?**
3. **Number of teaching/caregiving staff?**
4. **Number of children on your maximum enrollment day?**
5. **When does your last child arrive?**
6. **When does your first child leave?**

After getting the answers to these questions, the following formulae can be used to determine contact hours (CH) based upon the relationship between when the children arrive and leave (TH) and how long the facility is open (TO):

CH = ((NC (TO + TH)) / 2) /TA

CH = (NC x TO) / TA

CH = ((NC x TO) / 2) / TA

CH = (NC2) / TA

Where: CH = Contact Hours; NC = Number of Children; TO = Total number of hours the facility is open; TA = Total number of teaching staff, and TH = Total number of hours at full enrollment.

By knowing the number of contact hours (CH) it will be possible to rank order the exposure time of adults with children. This metric could then be used to determine if greater contact hours is correlated with the increased risk of the COVID19 virus, for example. The following chart can be used by entering the following metrics (example in the table is based upon 5 enrolled children (NC)): the facility is open for 10 hours (TO) and then various scenarios are played out for how long the facility is at full enrollment (TH). Based upon these metrics an outcome rubric can be used where less CH is a positive (+), while high CH is a negative (-). For simplicity, the following chart is based upon one teaching staff (TA) being present (1:5 Adult-Child Ratio).

Contact Hour Score Generated from Above 4 Formulae and Potential Outcomes (COVID19 Infections)

Contact Hours – CH ScoreFormulae for CH ScorePotential Outcomes 25
(5 (NC) x 10 (TO)) / 2 + 37.5
(5 (NC) (5 (TH) + 10 (TO)) / 2 + / –
50
5 (NC) x 10 (TO)
-/ +
62.5 5 (NC) x 12.5 (TO) –

Formulae for a Contact Hours Metric to be Used in Emergency Child Care Technical Research Note

Here is an update to the above Technical Research Note with a Conversion Table generating Relatively Weighted Contact Hours and a series of research notes (first paper) and an Excel Spread Sheet for actually do the calculations and generating results (second paper):

CHACR Fiene 4-24-20

CHACR Formula Models3 Excel Spreadsheet

New iLookOut Publication on Cognitive Mapping

Thursday, April 09, 2020

The **iLookOut Research Team** from the College of Medicine, Penn State Hershey, Bloomsburg University, New York University, and the University of Oklahoma have recently had their research into cognitive mapping published in the ***Journal of Distance Education and e-Learning.*** Please see the article below describing this research:

Journal of Distance Education and e-Learning

Child Care Trilemma Out of Balance

Monday, May 04, 2020

The Child Care Trilemma of Affordability, Availability, and Quality had reached somewhat of a balance over the past 50 years since its original identification. However, recently in the quest to get child care programs back up and running, the balancing act of these three concepts appear to be a bit ajar. Since the COVID19 pandemic closed down the majority of child care in the country with the exception of emergency child care for essential workers, there has been a great deal of discussion on how best to move forward within national forums. I have had the distinct honor to be included in many of these discussions.

What is beginning to worry me as I listen to others debate the rebooting of child care are the positions regarding the Child Care Trilemma Balance seem to be shifting to more emphasis on the affordability and availability (quantity) side of the equation with quality somewhere in the rear view mirror. There is no doubt in my mind that child care is going to be a driving force to getting the general workforce back to work, but I hope we don't

regress 50 years to the same political dichotomization of child care as a workforce support for parents ***or*** a child development service for children.

Ten Principles for Reopening Early Care and Education Programs

Tuesday, May 12, 2020

1) It appears that “distancing” is a key element in the spread of the virus. Square footage, staff-child-ratio and group size are the three standards/regulations that probably have the most impact on “distancing”. Chances are the fewer staff and children in place together in the largest space will help to mitigate the spread of the virus. We need to move our “Do No Harm” to “Mitigated Unavoidable Risks” as our safety philosophy during this pandemic. Square footage, staff-child-ratio, and group size form a “Prevention Triangle” in attempting to keep kids safe during a pandemic in practicing “distancing”. It is not perfect but it may help to prevent some cases. We know that kids don’t social distance well, so we need to prepare the environment to help this to happen or at least increase the chances that it will occur. It will be more about “reducing risks” rather than “preventing risks”.

2) Keep group sizes to 10 or fewer children.

3) Increase square footage to the greatest possible level. This could be done by limiting the number of children at a particular site – think in terms of a family child care home model but having it at a child care center. Use the group size as a cohort and do the introduction of only one cohort at a time within a center based program. Only use self-contained classrooms. The largest classroom that is available at the site, it will be easier for supervision.

4) Start with the older children, so that the ratio of staff to children can be maintained at 10-1 or 8-1 safely as per *Caring for Our Children* standards. Younger children who will require additional staff will be introduced after we see how well the older children with one adult do.

5) Limit the number of hours in keeping the facility open. It is all about contact hours and exposure times.

6) In the classroom, spread the group out by placing activity areas/learning centers as far apart as possible. Expand the group. Design developmentally appropriate activities that can incorporate masks and distancing. Engage in more solitary or parallel play rather than group activities, just like toddlers do naturally in their developmental play patterns. Mix up indoor and outdoor activities. If there is only one group/cohort at each center there will be no need to worry about mixing of different groups.

7) Have teachers practice non-developmentally appropriate interactions by practicing safe distancing and not getting eye to eye with the child when interacting. This will help with mitigating the spread of the virus so that if the child sneezes it will not be close to the teacher’s face. Along with masks, issue smocks for each teacher to wear, they will be easier to wash if they do become infected.

8) Have the state licensing agency keep track of how programs are doing by using

Fiene's "Contact Hour Methodology" to determine any overpopulation situations. Also, it could be an excellent tracking tool for future planning during a pandemic in answering questions about potential thresholds when it comes to the amount of contact hours between staff and children. Go to http://rikinstitute.com for details.

9) By keeping group sizes to 10 or less it would be easier to transport the children because of the smaller numbers and practicing distancing in a van.

10) After a month or so and there are no outbreaks of the virus and staff are getting more comfortable & less stressed, add another cohort to the center in a separate self-contained classroom and follow the same steps as listed above.

Washington State Pilot Study Demonstrates Effectiveness of Contact ...

Tuesday, May 26, 2020

An exciting development has occurred in a child care pilot study in the state of Washington in which a new monitoring methodology appears to be able to build a metric that is effective at determining potential COVID19 infection rates. The results need to be expanded and replicated but it appears that by using a new metric called "Contact Hours" instead of group size, it is possible to build a screening tool that takes into account time, space and numbers of individuals and provides a Conversion Table based upon the number of children, adults, and time of exposure and placing these data into a series of equations with the result, the higher the "Contact Hours", the higher the potential infection rate.

It uses a color coded (red, yellow, green) traffic light pattern in which as the "Contact Hours" increases, it correlates with the potential spread of the COVID19 virus. Red indicates "Highest Potential"; Yellow indicates "Mid Range Potential"; and Green indicates "Lowest Potential". The "Contact Hour" modeling and formulas take into account both exposure time as well as density distributions of individuals. The "Contact Hour" metric is much more effective and efficient than either measuring group size or staff-child ratios alone or in combination.

The Washington child care validation pilot study is attached here:

Washington Child Care Contact Hour Validation Pilot Study

The authors of the study are now interested in fine tuning the methodology to determine the exact thresholds in the "Contact Hours" models which can statistically predict the potential spread of the virus.

ECE Validation Studies Completed in Washington State and the Provin...

Wednesday, May 27, 2020

Two large scale early care and education validation studies were completed in the state of Washington and in the Province of Saskatchewan demonstrating the effectiveness and efficiency of the differential monitoring approaches of risk assessment and key indicators.

Attached below are the two studies:

NARA Saskatchewan Validation Studies

NARA Washington Validation Final Report

These studies are extremely important because they demonstrate that differential monitoring as encouraged by CCDBG/CCDF via risk assessment and key indicator methodologies is an extremely valid approach to ECE licensing and program monitoring.

The Washington State Foster Care Study

Sunday, June 21, 2020

The state of **Washington Department of Children, Youth, and Families** just published a significant foster care pilot study utilizing an innovative key predictive methodology.

A mixed method correlational exploratory pilot was conducted in Washington State to determine items within the home study assessment that could be used as indicators to identify baseline requirements of the assessment and suggest anticipated depth (expansion or reduction) within the required topic(s). The purpose of the home study is to assess the caregiver(s)' ability to provide a safe home, the quality of care needed by children and an environment that is nurturing, respectful and supportive. The goal of this study is to identify predicative indicators that will assist in the development of a home study that will increase consistency within home studies and decrease timeliness of completion.

The use of predictive indicators may have the potential to reduce subjective decision making as well as identify inconsistencies when determining the recommendation of approval or denial of a home study. Additionally, with a carefully designed home study system inclusive of predictive analytics, it is possible to reduce the amount of time an assessor uses to approve or deny a home study, saving agency time and resources. Finally, by using focused technical assistance with those applicants who need more or specific support, the use of predictive indicators may increase the success of timely placement and permanency goals. This mixed method study included a case review of 207 home studies where 19 primary and secondary themes emerged as significant. It lays the ground work for methods used to identify predictive elements within the

assessment process. Preliminary results are provided along with further recommendations.

Please see the following link to learn more about this research study:

https://authors.elsevier.com/a/1bGP3hNfKp8GF

COVID19 Daily Infection Rates: “The Tale of Two Trends&am...

Thursday, July 02, 2020

COVID19 Daily Infection Rates: The Top 25 Countries and Trends in the Data

“The Tale of Two Trends”

Richard Fiene, Ph.D.

July 2020

I have been monitoring the COVID19 daily infection rates since the Johns Hopkins University site was established (https://coronavirus.jhu.edu/map.html) and two very different trends in the data have clearly emerged over the past 6 months which I find very unsettling.

The two trends (daily cases trend line) are the following: 1) A very positive trend in that cases did spike but since the spike have decreased significantly and are either at a very low level or continue to decrease. This is a good trend and one we had hoped for early on when the pandemic was first identified. However, there is a second trend 2) A very negative trend in that cases did spike but have plateaued out and are not decreasing or they are still increasing. This is not what we wanted to see. I am not going to conjecture into why this has occurred but I only want to list the countries in these two groups because maybe we can learn from the Group 1 countries.

I looked at the top 25 countries with the highest COVID19 daily infection rates in the aggregate (Total Confirmed Cases). Unfortunately, the majority of countries are in Group 2 (Negative Result)(n = 18) rather than in Group 1 (Positive Result)(n = 7).

- ***Group 1 (+ Result) = UK, Spain, Italy, France, Germany, Canada, China.***
- ***Group 2 (- Result) = US, Iran, Brazil, Russia, India, Peru, Chile, Mexico, Pakistan, Turkey, Saudi Arabia, South Africa, Bangladesh, Columbia, Qatar, Sweden, Egypt, Argentina.***

So what is so different about these two groups of countries’ approaches. Can we learn from Group 1. On the surface they look like a very diverse group from three different areas of the world. Please keep in mind that I only looked at the top 25 countries because they had the largest number of confirmed cases. However, when you analyze the data from all 188 affected countries the two trend lines hold up so again we could continue to search out the Group 1 countries and find out what is different about their approach because it appears to be working a lot better than the Group 2 countries.

Richard Fiene, Ph.D., Research Psychologist, Research Institute for Key Indicators (RIKIllc), rfiene@rikinstitute.com , http://rikinstitute.com .

Proposed COVID19 Mitigation Logic Model

Monday, July 13, 2020

A week or two ago, I posted “A Tale of Two Trends” in which I attempted to show trends in daily COVID19 infection rates for countries that were successful and those that were not. This post deals with a proposed logic model (attached below) that might explain these two trends. The red sequence is not what we want to be doing while the green sequence is what we should be doing. The actual daily infection rates taken from the various countries clearly demonstrate the differences when the appropriate mitigation approaches are not followed.

COVID19 Logic Model

ECPQIM: Early Childhood Program Quality Improvement & Indic...

Thursday, July 16, 2020

Here is a draft of the Early Childhood Program Quality Improvement and Indicator Model Tool (ECPQIM Tool) based upon the key indicator methodology combining indicators from both research on regulatory compliance and program quality over the past 40 years. It represents a major cost effective and efficient advance in how best to monitor early care and education. This tool is being developed in the Ministry of Education, Province of Saskatchewan.

ECPQIM Tool

Also, here is a draft of a report presenting the results of two validation studies in the State of Washington and the Province of Saskatchewan validating the key indicator and risk assessment methodologies in early care and education programs.

Validation Studies

Virtual/Remote Inspections for Early Care and Education Programs

Monday, July 20, 2020

Licensing and Monitoring agencies are beginning to look more at doing “Virtual” or “Remote” inspections because of the COVID19 Pandemic. Attached below is a series of papers dealing with some key elements of this discussion: an introductory statement, NARA “Remote Inspection” Guide, and a checklist on the “13 Indicators Related to Health and Safety” published by ASPE. Here is the introductory statement followed by the full series of papers:

Early Care and Education Virtual/Remote Inspections

Richard Fiene, Ph.D.

The purpose of this paper is to delineate what the key elements for virtual inspections could be given the present COVID19 pandemic. It is suggested as guidance for licensing agencies and other Early Care and Education (ECE) agencies, such as Head Start. Specific rule/standards will be suggested as well as other possible approaches to conducting virtual inspections. It should be looked upon as a companion document to go along with ***NARA's (National Association for Regulatory Administration) Virtual Inspection***document (Attached document below).

Obviously, program monitoring via virtual inspections will change the oversight and inspection function of licensing agencies and other agencies responsible for measuring compliance or performance with ECE programs. Here are the key elements and rules/standards that should be emphasized in these virtual reviews. The focus will be on keeping children and staff healthy and safe. Rules/standards related to health and safety should be emphasized, especially those that will prevent the spread of infectious diseases. Also rules/standards that will support and enhance mitigation efforts such as group size, staff-child ratios, square footage should be emphasized.

Specific rules/standards in the following areas:

- *Group size* and Staff-Child ratios;
- *Attendance/Enrollment;*
- *Health and Safety (especially related to the spread of infectious diseases);*
- *Exposure time;*
- *Square footage;*
- *Drop off and Pick Up arrangements;*
- *Transportation;*
- *Mixing of groups and small group activities;*
- *Care for Ill Children;*
- *Fiscal Stability.*

If the above suggested rules/standards review does not work then an alternative approach could be one in which the virtual inspection would focus on the rules/standards in the following tool:

Thirteen ECE Key Indicators(Attached document below)

This tool contains statistical key predictor rules/standards that will predict overall compliance. So an agency can administer this tool virtually similar to the suggestions in ***NARA's Virtual Inspection Guide*** and only follow up with those ECE programs which demonstrate non-compliance with any of the rules/standards with the 13 Key Indicators.

ECE Virtual/Remote Inspections Papers

Journal of Regulatory Science Article on a Mixed Method Program Eva...

Wednesday, July 22, 2020

A very important and significant study was reported in the ***Journal of Regulatory Science***: *A Mixed Method Program Evaluation of Annual Inspections Conducted in Childcare Programs in Washington State* by Dr Sonya Stevens.

This mixed method study used a program evaluation to assess the reliability and social validity of the focused childcare monitoring checklist used in Washington State, as well as its social validity in maintaining quality programming in licensed childcare centers. The focused monitoring checklist and interview responses were used to answer two specific research questions: (1) How do stakeholders describe the value, usefulness, and effects of state administrated focused monitoring?; and (2) What is the inter-rater reliability of the focused monitoring tool used to assess the foundational health and safety issues that must be met by state licensed early childhood programs? The study found that licensors and providers found the focused monitoring tool as more efficient and informative than the current differential monitoring system. The use of a checklist focusing on real time compliance increased the value placed on the relevance of the inspection with respect to meeting licensor and provider needs. The results also showed that even with a controlled tool, performance of onsite inspections can vary greatly along a continuum of reliability and objectivity due to licensor rater drift and individual perceptions of licensing procedures. Licensing agencies should consider further

evaluation of the monitoring process and the reliability of the checklist tool as the process is implemented statewide, concentrating on the training content and training methods provided to licensors.

Below is the URL for the full article in the journal:

https://journals.tdl.org/regsci/index.php/regsci/article/view/126/193

Re-Opening Your Facility and Keeping It Open Safely During A Pandemic

Saturday, August 08, 2020

Here is a creative model to deal with reopening schools, early care and education programs, large group settings, businesses, and then monitoring them over time. Ari Rosner provides us with a brilliant approach to setting up a defined space using distance algorithms. Very unique and clever think-outside-the-box methodology. These models address the number of individuals present, distancing/space, exposure time, and density. It is a perfect example of data utilization at its best. Highly recommended for any facilities or large businesses and agencies:

- *Rosner-Fiene Model PPT Slide Deck*
- *Rosner-Fiene Model pdf version*

Updated Health and Safety Briefs from the National Center for Early...

Tuesday, August 18, 2020

The National Center on Early Childhood Quality Assurance (ECQA Center) is pleased to share an updated series of briefs about the health and safety training topics required in the 2016 Child Care and Development Fund (CCDF) Program Final Rule for all child care providers that receive payment from the CCDF subsidy program.

Licensing and CCDF administrators may find these briefs helpful as they consider revisions to standards for both licensed and license-exempt providers. These briefs may also be useful in developing health and safety guidelines for child care providers during the coronavirus disease 2019 (COVID-19) pandemic—especially the brief about the prevention and control of infectious disease—because all the briefs provide links to best practice guidelines and examples of regulatory language on the topics.

This series of CCDF health and safety requirements briefs, updated in July 2020, provides an overview of national guidelines and state requirements related to the following topics:

· Brief #1: Prevention and Control of Infectious Diseases

· Brief #2: Administering Medications

· Brief #3: Prevention of and Response to Emergencies Due to Food and Allergic Reactions

· Brief #4: Reducing the Risk of Sudden Infant Death Syndrome and Using Safe Sleeping Practices

· Brief #5: Building and Physical Premises Safety

· Brief #6: Emergency Preparedness and Response Planning

· Brief #7: Handling, Storing, and Disposing of Hazardous Materials and Biological Contaminants

· Brief #8: Transportation of Children.

Each brief includes the following:

· Links to relevant standards from *Caring for Our Children Basics: Health and Safety Foundations for Early Care and Education* , which represent the minimum health and safety standards that experts believe should be in place when children are cared for outside their homes

· Links to relevant standards in *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Early Care and Education Programs, CFOC Online Standards Database* , which represent best practices with respect to health and safety in early care and education settings and helps programs and providers implement *Caring for Our Children Basics* standards, understand the research and rationale behind the standards, and move to higher levels of quality in health and safety

· Data from the 2017 Child Care Licensing Study about licensing requirements for child care centers, family child care homes, and group child care homes in all 50 states and the District of Columbia

· Examples of regulatory requirements for licensed and license-exempt providers that represent a range of approaches taken by the 50 states, District of Columbia, and 5 territories

· Additional resources and tools to support states, territories, and tribes in the development and revision of health and safety requirements for child care settings.

For additional information and support, please visit the ECQA Center website or email us at QualityAssuranceCenter@ecetta.info.

Office of Child Care

Administration for Children and Families

U.S. Department of Health and Human Services

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National Association for Regulatory Administration's 2020...

Thursday, August 27, 2020

2020 Virtual Licensing Seminar

September 14-16

NARA presents this year's concurrent session schedule for the 2020 Virtual Licensing Seminar! This year we're featuring great conversations centered on the great work that you all do. Check out the sessions highlighted below and register today.

Monday, Sept. 14

Concurrent Session A [1:45 – 2:45pm ET]

Validation Studies of Licensing Key Indicator Rules and Risk Assessment Rules: State of Washington and the Province of Saskatchewan
Presented by: Rick Fiene, Sonya Stevens, Kim Taylor, Derek Pardy

Establishing Collaborative Relationships in Early Child Care
Presented by: Sharon Woodward

The Joint Commission Behavioral Health Accreditation – QRTP Accreditation Implementation
Presented by: Mary Louise Wei, Colette Bukowski

Piloting a New Bridge to Quality
Presented by: Nakilia McCray, Shannon Carroll

Monday, Sept. 14

Concurrent Session B [3:00 – 4:00pm ET]

Keeping Children Safe: Trends in Child Care Licensing
Presented by: Sheri Fischer, Tara Orlowski

Licensing and Enforcement in the 21st Century – Innovation, Collaboration, and Data
Presented by: Tyler M Farmer, Sonya Stevens, Judy Bunkleman

Assisted Living Regulations During a Pandemic
Presented by: Margie Zelenak

Licensing's Role In Supporting the Reduction of Suspension & Expulsion
Presented by: Amy Page, Alexa Watkins

Tuesday, Sept. 15

Concurrent Session C [12:30 – 1:30pm ET]

Effective Strategies to Regulated Assisted Living Providers
Presented by: Alfred C. Johnson

Working Together to Advance Quality
Presented by: Tara Lynne Orlowski, Ed.D., co-presenters TBA

The Quality Connection: Connecting the Dots for Continuous Quality Improvement
Presented by: Iko Ezell-Blackmon, Catherine Broussard

Remote Inspections: Protecting Health and Safety in Emergency Situations
Presented by: Ron Melusky, Alisa Hendrickson

Tuesday, Sept. 15

Concurrent Session D [3:00 – 4:00pm ET]

How Stakeholder Collaboration Drives Successful Outcomes for Technology Implementations
Presented by: Michelle Thomas, Martin Bing

Using Licensing Data to Understand Connections Within Early Care and Education
Presented by: Nina Johnson, Kelly Maxwell, Simon Bolivar, Michele Adams

Utilizing Trauma Informed Care Principles in Licensing Inspections
Presented by: Donna Sabo, Joyce Debolt

Coming Together in the Time of COVID
Presented by: panelists TBA

Wednesday, Sept. 16

Concurrent Session E [1:45 – 2:45pm ET]

Putting the Pieces Together
Presented by: Michele Adams, Jeanne VanOrsdal

Measuring Workforce Competency
Presented by: Tara Lynne Orlowski, Ed.D., Ryan A. Wilke, Ph.D.

An Approach to Tackling Unlicensed Child Care
Presented by: April Rogers, Tahishe Smith

Social Distancing and On-site Inspections – Defining the New Normal
Presented by: Mark Parker

For more details on each session, check out NARA's website.

View the Seminar Schedule-at-a-Glance online.

Register today!

*NARA has been my professional go-to organization for over 20 years. The availability of knowledge from its members, issue papers, credential, and products has been invaluable. I am looking forward to this year's Seminar, and while I will miss the in-person networking and seeing friends from across the country, I am honored to be part of an organization that is supporting its membership with this free learning opportunity.***Debby Russo, NARA Board Member**

Questions? Contact events@naralicensing.org

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888.674.7052

Campus Tycoons Having A Positive Impact

Saturday, August 29, 2020

Here is a wonderful example of how students are making a positive impact. I have posted about **Pandemic Analytics** in a previous post after learning about their work with schools and businesses. But what really catches your attention in this latest article is the commitment of the team at **Pandemic Analytics**.

As a research psychologist and professor of psychology, I spent a great deal of time working with students similar to the team at **Pandemic Analytics** and whenever I read about how they want to have a positive impact, I am so encouraged that our future will be in good hands.

Take a minute to read the following article (Link or pdf) about what I feel are some of the best and brightest:

https://campustycoons.com/caltech-student-designs-tools-to-help-schools-and-businesses-return-safely-to-in-person-mode/

CalTech student designs tools to help schools and businesses return safely to in-person mode Download

Presentation Made in the State of Washington by Stevens & F...

Monday, August 31, 2020

Here is a presentation that Drs Fiene and Stevens did last month to senior leadership in the Department of Children, Youth, and Families in the State of Washington. The presentation highlighted the encouraging results from a pilot study conducted in Washington's Early Care and Education programs by Dr Stevens utilizing the new Contact Hour metric proposed by Fiene. The new metric is being proposed as an innovative virtual/remote measurement strategy to monitor COVID19 infection rates by tracking exposure time, density, and spacing in child care centers.

Here is a copy of the presentation and paper:

Evolution of Contact Hours Metric PPT + Paper Download

Presentation at the NARA Licensing Seminar on Validation of Key Ind...

Tuesday, September 08, 2020

Next week on November 14th, 2020 Dr Fiene will be joining Dr Sonya Stevens from the Washington Department of Children, Youth, and Families; and Kim Taylor and Derek Pardy from the Province of Saskatchewan's Ministry of Education to do a presentation on their respective Validation Studies. The Validation Studies are demonstrating the efficiency and effectiveness of the Key Indicator and Risk Assessment methodologies as they are applied in licensing early care and education programs by using a differential monitoring approach.

Below is the slide deck that will be used for the presentation.

NARA Seminar Validation Pres 2020c Download

National Meetings and Panels During the Month of September

Wednesday, September 16, 2020

During a two week time frame (Sept 7 – 21), Dr Fiene has had the opportunity to present and discuss pressing issues within early care and education related to COVID19.

The Virtual NARA Licensing Seminar

CCEEPRC Use of Licensing Data

Expert Licensing Panel hosted by the National Center for Early Childhood Quality Assurance

COVID19 Early Childhood Expert Panel hosted by the National Center for Early

Some Takeaways from the NARA Licensing Seminar

Wednesday, September 16, 2020

There have been several very interesting discussions at the NARA Licensing Seminar that are worth sharing. Here are some takeaways from the various sessions that need highlighting. These highlighted items are pertinent to all human services and not just to early care and education programs and they have a definite monitoring slant:

1. Virtual inspections will be of tremendous interest in the foreseeable future in how jurisdictions conduct licensing and monitoring reviews of programs.
2. Outcome validation studies will need to be completed in the licensing field to ultimately determine if clients are truly in a safe and healthy setting.
3. In doing virtual inspections, is a Key Indicator (KI) or Risk Assessment (RA) approach, which targets specific rules based upon predicting overall regulatory compliance and risk, a better approach than attempting to do comprehensive reviews. In other words, should (KI + RA) be used as a remote screener for more in-depth reviews where rule infractions have been found.
4. Limitations about the term “Compliance” and its negative connotations and short changing of programs. This is missing the point, the issue is not “compliance” but rather having “standards that are not high enough”. This has been clearly documented in the ***Regulatory Compliance Law of Diminishing Returns*** . This concept will be further developed in future RIKINote Blogs.

Key Indicator Webinar Will be Offered This Fall 2020

Wednesday, September 16, 2020

NARA will be doing a Licensing Key Indicator Webinar this Fall 2020. Many of the NARA Seminar participants were asking about this. A date has not been established, but it should be announced by NARA in the coming month or so. Be on the look out. For those of you who would like an introduction, please see the following flyer about Licensing Key Indicators:

NARA-Key-Indicator-Flyer Download

NARA Webinar on Licensing Key Indicator Rules

Friday, October 09, 2020

Dr Fiene will be doing a NARA Webinar on Licensing Key Indicator Rules on October 28th from 1:00 – 2:00pm.

Here are some concepts that Dr Fiene will cover in the Webinar contained in the attached file below:

NARA PRC KIS Webinar1 Download

NARA Webinar this week on their Key Indicator Methodology

Saturday, October 24, 2020

Here is the link to register for NARA's Webinar on their Licensing Key Indicator Methodology which will be aired on October 28th:

https://www.naralicensing.org/webinars.

Mitigating the Limitations of the Regulatory Compliance Law of Dimi...

Friday, December 25, 2020

A program quality enhancement is presented in the following Technical Research Note which should help to mitigate the limitations of the regulatory compliance law of diminishing returns. It has been noted that there is a ceiling/plateau effect when comparing regulatory compliance to program quality scores. The attached model provides an enhancement that may be a means for alleviating these limiting effects and rebuilds the relationship in a stepped fashion which moves regulatory compliance and program quality from a non-linear to a linear trajectory.

Here is the Technical Research Note and the original paper it is updating:

RC-PQ Grid Model2 Download 4RC trc-models1 Download

Contact Hour COVID19 Infection Rate Threshold Grid

Friday, December 25, 2020

Several previous posts presented a new contact hour metric for measuring compliance with staff child ratios and for monitoring potential COVID19 infection rates. However, a conversion table had only been proposed for the staff child ratios but not for the potential COVID19 infection rates. This post provides that conversion table. It will still require additional data to confirm its efficacy but at least it provides some guidance in looking at the relationship between the number of individuals present and the exposure time.

Here is the Technical Research Note and the original paper it is an addition to:

CH Infection Rate Threshold Grid1 Download 2WACHACR + CH Grid Download

Using Science for Formulating ECE Public Policy

Sunday, January 03, 2021

Here are three examples (all dealing with staff to child ratios) of using science in an innovative way to help formulate and guide early care and education (ECE) policy and standards/rules/regulations.

-> The use of developmental play patterns in determining staff child ratios. When caring for young children, toddlers are the most difficult to care for in groups. The reason being that toddlers do not form cohesive groups but rather engage in “herding” behavior. These “herds” are difficult to corral because of short attention spans and parallel play. So, does it make sense when promulgating standards that we reduce the relative size of the group and have fewer children to the teaching staff. Generally staff to child ratios are based upon the chronological age rather than the developmental age or developmental play patterns of the children.

-> In addressing the trilemma of child care (affordability, quality, accessibility) is it possible to alter the staff child ratio for those individual classrooms where we have a very highly qualified teacher (BA or MA in ECE) and increase the staff child ratio by one child. The increased tuition that comes with the extra child being enrolled would translate into a salary increase for the very highly qualified teacher in that respective classroom. In so doing, we address affordability, accessibility and quality in one fell swoop.

-> In determining staff child ratio compliance with the specific number of children to teaching staff in a group or classroom try utilizing a new metric called “contact hours”. “Contact hours” determines the number of children in a classroom or group setting and looks at that group with the number of teaching staff present over time. By asking 6 very basic questions, it is possible to calculate the area of a trapezoid to determine via this new metric “contact hours” if the group or classroom is in compliance or not with the specific staff child ratio for the respective age group by the area of the trapezoid. The other intriguing aspect of “contact hours” is that it can be calculated remotely or virtually without needing to do on site observations.

These are just three examples of how we can begin to use science to help us determine empirically how best to design and implement ECE standards/rules/regulations. If you are interested in any of these three examples, please don’t hesitate to contact me and I can provide additional documentation.

A Treatise on Essential Early Care and Education

Sunday, January 03, 2021

Here is a proposal for a new approach for reinventing early care and education in the post COVID19 Pandemic era. It is very controversial but one that needs to be put on our radar screen.

After being in the early care and education (ECE) field for approximately a half century, I want to propose a radical departure from how we have designed our ECE systems. Many national organizations have been suggesting that we take this time because of the COVID19 pandemic and rethink how we want to bring ECE back online building a newer and better system. We do have a unique opportunity to do this since we have lost approximately 25% of ECE as of this writing. However, I am sure what I am about to suggest is not what many of my ECE colleagues had in mind.

It is ironic because what I am proposing is very similar to an idea I had and even proposed to a federal agency practically 50 years ago. It starts with rank ordering the need of ECE and thinking of offering ECE only on an essential basis. By essential I mean for those parent(s) who only really need and want to have ECE services. For those who do not, let’s pay them a stipend to stay at home with their child(ren). And this can be either mom or dad. I have not had the opportunity to run the numbers, but I am guessing that my suggestion of providing stay at home stipends could be paid for by the reduction in total need for ECE services since we would definitely see a reduction in the total need for ECE as it relates to out-of-home care. So this could be a cost neutral program.

So rather than trying to replace the 25% we have lost in ECE programs and replacing them with a higher quality version, let’s totally think outside-the-box and ask parents if they really want those services or would they prefer to stay at home and raise their children in their own homes. The remaining 75% of ECE programs still will need a quality

booster-shot because by best estimates prior to the COVID19 pandemic, only 10% of ECE programs were of a high-quality level.

I know that this is a radical departure from our present thinking both within the ECE advocacy community and I am sure within political circles, but maybe this is exactly the type of proposal we need to reinvent ECE. I know this is not going to be a popular idea but I want to get us thinking more broadly because the thinking so far appears to be centered on fixing an already broken system but mostly staying within the confines of that broken system. Let's really reinvent ourselves and ask parents what they want and need rather than ECE "experts" trying to make this decision for them.

Essential ECE Fiene 2021 Download

Child Care Aware of America's Licensing Benchmark Project

Friday, January 15, 2021

Child Care Aware of America (CCAoA) has published a very significant new publication: The ***Child Care Licensing Benchmark Project*** building on the very important work they have been doing over the past 15-20 years related to child care center and home licensing standards at the state level (State Report Cards). This latest project and publication takes that work to the next level. It clearly highlights the importance of ***Caring for Our Children Basics***, the voluntary national standards for health and safety in child care programs.

Here is a copy of the publication:

CCAoA ChildCareBenchmarkLicensingProject-FINAL-11022020 Download

I encourage individuals to go to CCAoA's website for additional information regarding this very important and significant project.

Rule Compliance Versus Rule Performance

Saturday, January 23, 2021

Here is a short paper addressing the issue of rule compliance and rule performance which is being discussed a good deal in regulatory science circles. The paper addresses some of the major measurement principles of regulatory compliance, licensing and monitoring systems and their subsequent measurement parameters.

Regulatory Compliance Measurement Principles2 Download

This short paper is part of the RIKI Technical Research Note Series maintained at the Research Institute for Key Indicators.

Academia Discussants Additional Papers

Saturday, February 13, 2021

Here is the series of regulatory compliance and performance papers organized into an anthology for easy reading. I included the original paper as reference but after that paper all the other papers support and add to this original paper. Also, pay particular attention to the last paper presentation where a performance assessment matrix is introduced.

Rule Compliance and Performance Papers Download

Feel free to either comment here or on the Academia Discussant Area.

RIKI and NARA Renew their Exclusive Licensing Key Indicator Agreeme...

Tuesday, March 16, 2021

This past January 2021, the National Association for Regulatory Administration (NARA) and the Research Institute for Key Indicators (RIKI) renewed their exclusive licensing key indicator agreement for 5 additional years. The new agreement has several interesting enhancements. Probably the most significant is the creation of a new course on *Licensing Measurement* that Dr Fiene will be developing for NARA to be offered through their website. The course will be fully self-contained and self-paced for the learner. It will be offered exclusively through the NARA website on their Facilitated Dialogues Web Page (https://www.naralicensing.org/key-indicator-facilitated-dialogues).

The renewed agreement continues the successive steps in transferring the differential monitoring, risk assessment and key indicator methodologies from RIKI to NARA so that NARA will become the sole owner and licensor of these methodologies.

Look for updates on this website as well as on NARA's website regarding the new Licensing Measurement course.

NARA to Offer New Course on Licensing Measurement

Tuesday, March 16, 2021

Starting this Fall 2021, NARA – National Association for Regulatory Administration in conjunction with the Research Institute for Key Indicators (RIKI) will be offering a new course, *Licensing Measurement and Systems*. The course is being developed by Dr Richard Fiene, Penn State Professor of Psychology (ret) & NARA Senior Research Consultant. Here are a couple of summary comments about the course:

This course will provide the learner with the major tenets of licensing measurement. The learner will discover as they go through the course that measurement in licensing is very different than other measurement systems found in many of the various social and human services. It has some very unique and idiosyncratic aspects which will provide us with increasing challenges in coming up with specific metrics in determining regulatory

compliance.

The field of regulatory science is a very young field. Although regulations have been kicking around for well over 100 years, the science behind regulations is probably a quarter of this time. So there is not a great deal of empirical evidence to draw upon which is discouraging but it is very encouraging and exciting at the same time because so much needs to be accomplished in establishing regulatory science's theory.

Check back periodically on this website (***http://rikinstitute.com/blog/)*** **or go to NARA's website at: (** ***https://www.naralicensing.org/key-indicator-facilitated-dialogues)***.

RIKI Technical Research Note on the Licensing Key Indicator Predict...

Sunday, April 04, 2021

Here are two papers dealing with the licensing key indicator predictor methodology, regulatory compliance and licensing management that help to round out some of the latest research in regulatory science utilizing an international database from the Early Childhood Program Quality Improvement & Indicator Model (ECPQI2M). The reader will find some key metrics/parameters related to licensing measurement, especially in the second paper.

Fiene Licensing Key Indicators No Checks 40b 5-1 Download ***RIKI Tech Res Note 2×2 Matrices2c*** Download

Licensing Measurement Paradigm Considerations: Performance Assessme...

Saturday, May 08, 2021

Below is a series of technical research notes dealing with licensing measurement paradigm considerations involving performance assessments, regulatory compliance modeling, risk assessment and weighting. It provides some of the latest thinking related to regulatory compliance and performance assessments as a monitoring continuum rather than as two separate assessments systems.

LM New Paradigms Download

Key Regulatory Compliance, Early Care & Education, Licensin...

Tuesday, May 25, 2021

1979 Contact Hours Metric Download 1985 Differential Monitoring Download 1997 Trilemma Solution Download 2000 Licensing Measurement Download 2001 Teaching Online Download 2002 Coaching & Mentoring Download 2013 Early Childhood Program Monitoring Indicator Model Download 2014 Validation Framework Download 2015 Caring for Our Children Basics Download 2016 Head Start Key Indicators Download 2017 Caring for Our Children Coaching Download 2019 Regulatory Compliance Theory of

Diminishing Returns Download 2020 Cognitive Mapping Micro Learning Download

Saskatchewan and Florida Differential Monitoring Projects

Monday, June 28, 2021

Attached below are two reports from Saskatchewan and Florida which delineate their respective experiences with developing differential monitoring systems.

-Saskatchewan Final Report Download –Florida DM Final Report Download

Program Monitoring Technical Research Notes related to Regulatory C...

Monday, June 28, 2021

Two technical research notes dealing with a paradigm shift related to program monitoring and its subsequent impact on regulatory compliance and quality. These research notes help to develop the key elements, principles, and dimensions when thinking about designing and implementing program monitoring systems.

trc-monitoring-paradigms Download Regulatory Compliance & Quality Differences Download

Caring for Our Children Basics: A Brief History of Early Care and E...

Friday, October 29, 2021

It all started in and around 1965 when the Federal government got into early care and education (ECE) in earnest with Head Start and federally funded day care for low-income families. It started off slowly but began to pick up momentum with exciting studies and research applying principles from developmental psychology to policy making. Researchers and policy makers wanted to make sure that these new programs were not detrimental to young children since our frame of reference were children being raised in orphanages and the ultimate outcome for children was not positive. Would ECE have the same impact?

Issues around quality, appropriateness of standards, and demonstration programs became the focal point of federal research funding. The focal point of this essay is on the appropriateness of the ECE standards and the resulting monitoring systems that were to become key to the federal involvement in early care and education. This essay will be organized by the following 50 years neatly broken out by each decade to get us from this beginning in 1965 until the publication of *Caring for Our Children Basics* in 2015 by the federal government, the Administration for Children and Families, U.S. Department of Health and Human Services. A look at the 2020 decade with a future note is also appended to this essay.

1970s

During the 1970's, the federal government became concerned about what were to be the standards for this new national program related to federally funded ECE for low-income families and their children. Head Start was a separate entity and we will revisit Head Start later but our focus for now is on the federally funded programs which became known back then generically as day care. This nomenclature changed to child care and to finally early care and education (ECE) during this 50-year history. The initial standards for day care were the *Federal Interagency Day Care Requirements (FIDCR)*. A very large appropriateness research study led by Abt Associates to determine what were the most salient standards and their intended impact on children while in day care was conducted during this decade. These standards were to be federally mandated requirements for any program receiving federal funding. This is where group size and adult-child ratios standards became such important safeguards and surrogates for children's health and safety in day care programs.

It also became of interest for the federal government to design the monitoring system that would determine compliance with the FIDCRs. But it became clear to the original designers of this new system that the monitoring of the FIDCR was going to be difficult to do across the full USA. So, the question became, is there a way to monitor the standards in the most effective and efficient manner? This question and the future of the FIDCR were to be altered and put on hold once we moved into the next decade.

1980s

A change in federal administration and a resulting change in philosophy related to the federal role in America altered many things and one of them was the relationship of the federal government and the states. Rather than the federal government mandating day care requirements, the focus changed with the locus of control moving from the federal level to the state level via block grant funding with very few federal requirements. This meant a moratorium to FIDCR and its ultimate demise. The federal government was not going to be in the business of providing day care, this was going to be the jurisdiction of the states. Head Start did become the exception to this rule with its own standards and monitoring system.

The focus of federal funding switched from the national to the state level in determining compliance with each state's respective child care licensing rules and not with an overarching FIDCR. There was still interest in making these state monitoring systems as effective and efficient but there was no interest in the federal government determining what these requirements would be. Two monitoring approaches grew out of this need for effectiveness and efficiency: risk assessment and key indicators. These two approaches were originally designed and implemented as part of a federally funded project called the Children's Services Monitoring Transfer Consortium in which a group of five states: New York, Michigan, Pennsylvania, West Virginia, and California teamed up to explore their most effective and efficient monitoring systems and begin transferring these systems to one another and beyond.

These two monitoring approaches were tested in the above respective states and it was determined that their impact had a positive effect on the children who were in those day care centers. This was a major finding, similar to the FIDCR appropriateness study, in which these approaches provided safeguards related to the health and safety of children while in day care.

1990s

By the 1990s, it became clear that the federal government had pretty much drawn back from any leadership role in having mandated federal requirements when it came to health and safety in child care. It was left to national ECE advocates who were positioned within the federal government (Administration for Children and Families; Maternal and Child Health Bureau) as well as throughout the USA with national and state agencies and organizations (American Academy of Pediatrics; American Public Health Association, National Resource Center for Health and Safety in Child Care) that saw a need for child care health and safety recommendations at least. If we could not have requirements, we could at least have recommendations and provide guidance to child care programs throughout the USA.

This led to the first edition of *Caring for Our Children* which was a comprehensive set of child care health and safety standards. It was a major game changer for the ECE field because now there was a universal set of standards based upon the latest research literature for states to use as they considered revising and updating their respective state licensing child care rules.

But there was a problem. *Caring for Our Children*was a comprehensive set of health and safety standards which was their strength but at the same time it was their weakness. They were so comprehensive (well over 500 well researched standards) that they were intimidating and it was difficult to determine where to begin for the states.

Several researchers remembered the two approaches to monitoring designed in the previous decade and wondered if they could be helpful in focusing or targeting which of the standards were the most critical/salient standards. The risk assessment approach to monitoring appeared to have the most immediate applicability and *Stepping Stones* t *o Caring for Our Children* was born. This document clearly articulated which of the 500+ *Caring for OurChildren* standards placed children at greatest risk for mortality or morbidity by not being in compliance with the respective standard. Since the early 1990s, *Caring for Our Children* and *Stepping Stones toCaring for Our Children* have gone through three editions and have become very important resources to state licensing agencies as they revise, update and improve their ECE rules.

2000s

In this decade several federal and national organizations began to use *Caring for Our Children* standards in innovative ways to measure how well ECE looked at a national level. The Assistant Secretary's Office for Planning and Evaluation in the U.S. Department of Health and Human Services published the *Thirteen Indicators of Quality Child Care* based upon a core set of predictor standards from *Caring for Our Children*. These were standards that predicted overall compliance with all the standards and were seen as an efficient monitoring system. NACCRRA (National Association for Child Care Resource and Referral Agencies) began publishing a national report card on how well states met specific standards and monitoring protocols based upon similar predictor standards from *Caring for Our Children*.

These efforts helped states to make significant changes in their ECE rules in their respective states and in a very voluntary way suggested a means for national standards for the ECE field although we would need to wait until the next decade in order to see such a published document of national ECE health and safety standards for early care and education: *Caring for Our Children Basics*.

2010s

By the 2010s, ECE had grown into a very large but unwieldly assortment of programs with varying levels of quality. Again because of major federal funding, the Child Care Development Block Grant, along with changes and enhancements in professional development, accreditation systems, quality rating and improvement systems, the ECE landscape had become more complex and less easy to navigate. And rather than coming together it was clearly more fragmented than ever.

We had very minimal requirements for the federal funding and most of these requirements were geared to the state agency using the state's respective licensing rules as the threshold for standards. This approach worked well with states with excellent licensing rules, but it wasn't working as well with states who did not have equally excellent licensing rules. We still did not have a core set of standards for ECE programs. Enter *Caring for Our Children Basics* which took the best aspects of the above two monitoring approaches, risk assessment and key indicators and molded it into this new document. This work was led by the federal government's Administration for Children and Families, U.S. Department of Health and Human Services and although the standards are still recommendations and guidance, it is our best attempt at having national standards for early care and education. It is an attempt to provide guidance to the full ECE field, child care, Head Start, preschool, and center based as well as home-based care. It would be nice to have *Caring for Our Children Basics* as the health and safety foundation for early care and education throughout the USA. I don't see this happening in my lifetime.

2020s: Looking to the Future

As a footnote to this essay, the new decade has been dealt with a major curve ball with COVID19 rearing its ugly head and ECE has been impacted greatly because of this pandemic. As of this writing we are nowhere closer to a solution to getting ECE programs back on line. If anything, the pandemic really demonstrated the fragility of the ECE system we have built over the past 50 years and it clearly has not done very well. My hope is that we can learn from the past 50 years and not continue another 50 years along the same route; although I am guessing that many ECE advocates would be glad to have what we had before the pandemic because what we have right non-sustainable. We know a lot more today than what we knew back in 1965 when we were worried about would day care hurt children's development. We know today that quality ECE benefits children but unfortunately, we are no closer to attaining this today than we were 50 years ago.

Two programs that have been very successful in avoiding these pitfalls are Head Start and the national Military Child Care program. Both programs are exemplary examples of quality early care and education being provided with separate funding streams and standards. Interesting enough when the Administration for Children and Families published *Caring for Our Children Basics*, both these programs were part of the reach of the published standards. As we re-invent and re-structure ECE we should be looking to both these very successful programs for guidance.

NRCKids “A Parent’s Guide to Choosing Safe and ...

Sunday, December 26, 2021

Here is the ***July 2019 National Resource Center for Health and Safety in Child Care and Early Education Guide*** for parents in choosing safe and healthy child care. It is a really nice checklist that should help parents in comparing their child care options. There is space for entering key indicator information for three child care programs.

AParent’sGuideJuly2019 Download

I have also attached a draft of a tool (***Early Learning and Child Care Program Quality Key Indicator Instrument***) I helped the Ministry of Education in the Province of Saskatchewan develop based upon quality indicators that I thought would be of interest as well to both parents and to ECE professionals. By using both of these guides, one has key indicators drawn from over 40 years of research into ECE licensing and program quality key indicators.

-Saskatchewan ECPQI Download

Caring for Our Children

Monday, December 27, 2021

The major publications surrounding ***Caring for Our Children*** dealing with risk assessment and key indicators along with their respective checklists/tools. Each of the publications are listed here for your convenience.

-PPT CFOC ALL Download 1ASPE Download 2Parent’s Guide Download 3Basics Download 4Basics Tool Download 5SS CFOC Download 6SS Tool Download 7CFOC Download

Regulatory Compliance Scale

Sunday, January 09, 2022

This blog post will propose a new Regulatory Compliance Scale (RCS)(Fiene, 2022) which should help in making comparisons between regulatory compliance and program quality systems, such as Environmental Rating Scales and Quality Rating & Improvement systems. The proposed scale builds off of a familiar 1-7 Likert scale that has been used a good deal in the early care and education field within program quality instruments/tools. This scale is based upon 40+ years of research into regulatory compliance data distributions which have been reported in this blog (RIKINotes) over the years.

The proposed scale (see **RCS Table** below) has the following structure of full compliance, substantial compliance, mediocre compliance, and low/non-optimal compliance. Numerically it is proposed that full compliance = 0 no rule violations; substantial compliance = 1-3 rule violations; mediocre compliance = 4-9 rule violations; and low/non-optimal compliance = 10+ rule violations. The transformation to a 1-7 Likert scale is as follows: full compliance = 7; substantial compliance = 5; mediocre compliance = 3; and

low/non-optimal compliance = 1.

When the above regulatory compliance scale is utilized it substantially reduces the skewness and kurtosis in the regulatory compliance data distribution which is a major problem with all regulatory compliance data distributions and has been reported repeatedly in the human services licensing research literature. The revised or transformed data distribution begins to approach a more normally distributed data set; albeit, not as normally distributed as the various Environmental Rating Scales but significantly better when straight frequency counts are used in determining regulatory compliance. This has been the preferred means of data recording since the introduction of Instrument-based Program Monitoring (IPM) in the 1980's. It is being proposed that the above Regulatory Compliance Scale (RCS)(Fiene, 2022) be used in place of this frequency based data system.

This newly proposed scale should go a long way in making future analyses in utilizing regulatory compliance data more useful and meaningful when making comparisons with the various program quality initiatives present in the early care and education field, such as the Environmental Rating Scales and Quality Rating & Improvement Systems.

RCS Definitions/Levels Rule Violations 7 Full 100% Compliance 0 Violations 5 Substantial Compliance 1-3 Violations 3 Mediocre Compliance 4-9 Violations 1 Low/Non-Optimal Compliance 10+ Violations **Regulatory Compliance Scale (RCS)(Fiene, 2022)**

Introducing the Theory of Regulatory Compliance to Neoclassical Eco...

Tuesday, January 18, 2022

In a previous RIKINote (4-8-2018), linear and non-linear models were discussed on a very broad scale. In this note, the Theory of Regulatory Compliance is being suggested as a non-linear paradigm to the dominant neoclassical economic theory and the linear mathematical modeling of econometrics.

The Theory of Regulatory Compliance is based upon several empirical studies conducted in the human services which states that the relationship between regulatory compliance and program quality is not a linear relationship when comparing the upper ends of the compliance x quality continuum. The relationship between regulatory compliance and program quality is linear at the lower end of the continuum when one is looking at non-optimal regulatory compliance up to a mediocre level of regulatory compliance. But once substantial regulatory compliance and full (100%) regulatory compliance are attained, there is a plateau or diminishing return effect when it comes to corresponding program quality levels. In other words, from an outcomes perspective, it is not a worthwhile use of resources to be in full regulatory compliance as versus substantial regulatory compliance. This result has been demonstrated in several studies in the human services field across the USA and Canada.

Why is this an important finding? Because there has always been an assumption that regulatory compliance is a linear variable. But based upon the Theory of Regulatory Compliance, it appears that it is truly a non-linear variable and it would change any mathematical equation within econometrics that introduces regulatory analysis. This could go a long way in explaining many of the disparities in pricing regulations and

supply/demand economics where regulations are heavily represented. Could the econometric mathematical modeling be more finely tuned by adding a non-linear paradigm to the formula generation via regulatory compliance?

The Latest Controversy in ECE: Failure of Pre-K and We're...

Saturday, February 12, 2022

I have been reading about the Tennessee Study regarding their Pre-K program and their lack of success. Unfortunately, the goals of the program to help very disadvantaged children gain and sustain those gains overtime did not come to fruition according to the study authors. The latest findings are no surprise and have been demonstrated in many other previous studies involving large scale early care and education (ECE) interventions. However, are we designing the wrong interventions and measuring the wrong aspects of development. Play is and has always been the paramount intervention strategy in early care and education programs. But when we design and implement Pre-K we seem to be more concerned about academics and forget about the need for children to play. Curriculum is critical but the curriculum should be based upon developmentally appropriate practices and child development principles, and it should be play based and not academically focused.

When we are thinking about curriculum and assessment, do we need to shift the paradigm in which assessment comes before the curriculum intervention. Shouldn't the curriculum be driven by each individual child's specific strengths and areas needing improvement. Having a more individualistic approach based upon the needs of the child which helps us to better solve the "problem of the match". There needs to be a more synergistic relationship between assessment and curriculum development and implementation.

The next area that is paramount are the overall qualities of the teachers. Teachers need to have a degree in early care and education and not in elementary education or any other degree that is not child development focused. It can be either an AA or BA degree, ideally an MA but that is probably unrealistic and too costly. But it must be in ECE. In the medical profession you don't want podiatrists doing heart surgery; same thing in ECE, we want ECE teachers teaching in ECE classrooms.

It has become really clear from Quality Rating and Improvement Systems (QRIS) that parent involvement and engagement is a key factor for overall ECE quality and positive child development outcomes. Without parental engagement, 75% of what needs to be accomplished is lost. And the environment that children are spending their days in ECE classrooms needs to be language rich and high quality exchange rates between teachers and children at a verbal level. Real exchange of meaningful dialogue and not commands that are uni-directional from teacher to child; but a real give and take between the child and the teacher. More of a dance rather than regimented marching.

And lastly, Pre-K should not be a separate program but rather one that is integrated with Head Start and child care classrooms. Pre-K classrooms should be part of Head Start classrooms and child care classrooms. We need to break down these structural barriers and have all children fully integrated and not in separate silos based upon funding streams.

New Land Use Study in Kenya utilizing the Theory of Regulatory Comp...

Tuesday, February 22, 2022

Attached to this post is a new land use study completed in Kenya utilizing the Theory of Regulatory Compliance. It was published in the ***International Journal of Human Capital in Urban Management***: *Planning implication of universities growth on land use: Confirmatory evidence from GIS spatial analysis,* by W.O.Omollo, Department of Planning and Development, Kisii University, Kenya.

ABSTRACT

BACKGROUND AND OBJECTIVES: Universities have customarily been seen as agents of development in the regions they serve owing to their roles of teaching, research, innovation and community extension. There is however a dearth of knowledge on how they influence land use change with a specific reference to compliance with planning standards. This paper therefore through a case study investigates the impacts that the growth of Kisii University has on land use change in Nyamage, a neighbourhood where it is situated within Kisii Municipality, Kenya. It subsequently links the observed change to compliance with planning standards.

METHODS: Guided by the theory of regulatory compliance, the study adopted a case study research design with a sample size of 226 drawn from 577 developments in Nyamage. Spatial data on land use change was collected using satellite images from Google Earth covering three epochs of 2005, 2014 and 2021. Analysis was undertaken using GIS. Data investigating compliance with planning standards were conversely collected using an observation checklist, land survey maps and analyzed using a one-sample t-test and paired t-test.

FINDINGS: The study established that in 2005, forest, short vegetation, transitional and built-up areas respectively covered 17%, 39%, 34% and 11%. These by 2021 correspondingly changed by 46%, -10%, -29% and 57% for the forest, short vegetation, transitional and built-up areas. The latter recorded the highest land use change, a condition mainly credited to the hostels built by private developers in an attempt to meet a demand created by students who could not find accommodation within the university. Research findings further disclosed that developments around the university were not complying with the planning standards used in regulating plot sizes, building coverage ratio and road reserves, leading to land use conflicts.

CONCLUSION: The establishment and growth of Kisii University have remarkably influenced land use change, which in the absence of development control contributes to the disregard of planning standards. This is because the government mainly sees universities as an avenue for spurring regional economic growth with less attention on their spatial implications. These findings may enlighten policy-making institutions with critical information for effective planning and development control around universities. The study also fills a gap that hitherto existed on the nexus between land use change and compliance with planning standards as relates to the growth of universities. It additionally enlightens the international audience on how the impacts of universities growth on land use may be evaluated through a triangulation of spatial and statistical approaches.

KEYWORDS: Development control; Kisii Municipality; Land use change; Planning standards; Universities

Kenya Land Use TRC IJHCUM-2111-1474 Download

Early Childhood Program Quality Improvement/Indicator Model Version...

Saturday, April 09, 2022

Here are two documents, one, a technical research note on the latest version of the Early Childhood Program Quality Improvement/Indicator Model (V5)(ECPQIM5a) and two, a powerpoint slide presentation on Licensing Measurement (PPT189).

ECPQIM5a Download PPT189 Download

KIM (Key Indicator Matrix) and RAM (Risk Assessment Matrix) Matrice...

Sunday, April 10, 2022

This technical research note will integrate the Key Indicator Matrix (KIM) and the Risk Assessment Matrix (RAM) into one platform to clearly demonstrate their statistical modeling overlap. Key Indicators deal with the ability to predict overall compliance or performance based on existing data. Risk Assessment Indicators do not predict but determine a risk score based upon prevalence and severity measures. Their purposes are different but when integrated together the two matrices are a powerful tool in determining the health of the measured entity.

The below matrix integrates the two matrices of KIM and RAM and shows that KIM scores are generally at the lower end of risk but having sufficient prevalence when it comes to non-compliance. RAM scores have a larger variance and are most concerning at the higher end of the continuum.

KIM x RAM Matrices

KIMLow GroupHigh Group Severity: **Compliance12** 3 Low **Non-Compliance45** 5 Medium 7 8 9 High Prevalence: Low Medium High RAM For additional information about this matrix, please don't hesitate to contact Dr Fiene at Fiene@psu.edu or RFiene@RIKInstitute.com

Key Indicator Model Statistics and Algorithms

Sunday, April 10, 2022

A technical research note is provided for other licensing researchers and statisticians who are interested in replicating the methodology through the use of a alternate statistical software package, such as SPSS, Systat or SAS. The research note provides all the background statistics and algorithms for the generation of a Key Indicator Matrix and results.

KIS Stat and Algorithms Download

A Brief History of Licensing Measurement

Monday, April 18, 2022

The history of licensing measurement and regulatory compliance has actually a rather long lineage but is still in its infancy in terms of development. In the early stages most licensing visits and inspection results were recorded via anecdotal records/case records with the licensing staff recording their results in more social work note taking. It was a qualitative type of measurement with very little quantitative measurement occurring with the exception of basic demographics, number of clients, number of caregiving staff, etc… This qualitative approach worked very well when there were not many programs to be monitored and there were sufficient licensing staff to do the monitoring and conduct the inspections.

This all started to change in the 1980's when Instrument Based Program Monitoring (IPM) was introduced and started to be adopted by state licensing agencies throughout the United States. Just as a footnote, this brief history is pertinent to the USA and does not include other countries although the Canadian Provinces have followed a similar route as the USA. The reason for the introduction of an IPM approach was the tremendous increase in early care and education programs in the 1960's and 1970's. It was difficult for licensing staff to keep up with the increased number of programs in their monitoring efforts. There needed to be a more effective and efficient methodology to be employed to deal with these increases.

A very influential paper was written in 1985 and published in *Child Care Quarterly* which introduced IPM along with Licensing Key Indicators, Risk Assessment (Weighting), and Differential Monitoring (Abbreviated Inspections). This paper outlined the various methodologies and their use by a consortium of states to test the viability of this new approach to licensing measurement, regulatory compliance, and program monitoring. Also, the terminology has changed over the decades. Back in 1985 weighting was used rather than risk, abbreviated inspections were used rather than differential monitoring, targeted monitoring, or inferential monitoring. All these terms can be used interchangeably as they have been over the years, but the first introduction of them back in 1985 utilized weighting and abbreviated inspections.

In the early 1990's the risk assessment methodology was used to develop *Stepping Stones to Caring for Our Children*, the comprehensive national health and safety standards for early care and education (ECE) programs in the USA. This was a major development in attempting to develop national voluntary standards for child care in the USA.

It was during this time that two other very significant discoveries occurred related to licensing data distributions: 1) Licensing data are extremely skewed and do not follow a normal curve distribution. This fact has a significant impact on the statistics that can be used with the data distributions and how data analyses are performed. For example, data dichotomization is warranted with licensing data; 2) Regulatory compliance data are not linear when compared to program quality measures but are more plateaued at the substantial and full regulatory compliance levels. The data appear to follow the Law of Diminishing Returns as compliance moves from substantial to full (100%) regulatory compliance. This finding has been replicated in several studies and has been controversial because it has led to the issuing of licenses to programs with less than full compliance with all rules/regulations/standards. These two discoveries have been very influential in tracking developments in licensing measurement since their discoveries.

In the new century as states began to adopt the various methodologies it became necessary to have a standardized approach to designing and implementing them. The National Association for Regulatory Administration (NARA) took up this role and in 2000 produced a chapter on Licensing Measurement and Systems which helped to guide states/provinces in the valid and reliable means for designing and implementing these methodologies. In 2002 a very important study was conducted by the Assistant Secretary's Office for Planning and Evaluation (ASPE) in which they published the *Thirteen Indicators of Quality Health and Safety and a Parent's Guide* to go along with the research . This publication further helped states as they revised their licensing and program monitoring systems for doing inspections of early care and education facilities based upon the specific indicators identified in this publication. Both publications have been distributed widely throughout the licensing world.

During the first decade of the new century, *Stepping Stones for Caring for Our Children* went through a second edition. This publication and the ASPE publications were very useful to states as they prepared their Child Care Development Fund (CCDF) plans based upon Child Care Development Block Grant (CCDBG) funding.

From 2010 to the present, there have been many major events that have helped to shape licensing measurements for the future. *Caring for Our Children Basics(CFOCB)* was published and immediately became the default voluntary early care and education standards for the ECE field. The *CFOCB* is a combination of the risk assessment and key indicator methodologies. Three major publications by the following Federal agencies: HHS/ACF/USDA: Department of Health and Human Services/Administration for Children and Families/United States Department of Agriculture, OCC: Office of Child Care, and ASPE: Assistant Secretary's Office for Planning and Evaluation dealing with licensing and program monitoring strategies were published. These publications will guide the field of licensing measurement for years to come. The Office of Head Start developed and implemented their own Head Start Key Indicator (HSKI) methodology. And in 2016, CCDBG was reauthorized and differential monitoring was included in the legislation being recommended as an approach for states to consider.

Most recently, the Office of Head Start is revising their monitoring system that provides a

balance between compliance and performance. This system revision will go a long way to enhancing the balance between regulatory compliance and program quality. Also, there has been experimentation with an *Early Childhood Program Quality Indicator* instrument combining licensing and quality indicators into a single tool. These two developments help with breaking down the silo approach to measurement where licensing and quality initiatives are administered through separate and distinct approaches such as licensing versus professional development systems versus quality rating and improvement systems. A paradigm shift in which an *Early Childhood Program Quality Improvement and Indicator Model* is proposed. The paradigm shift should help to make licensing measurement more integrated with other quality initiatives.

The licensing field continues to make refinements to its measurement strategies in building a national/international regulatory compliance data base. More and more is being learned about the nuances and idiosyncrasies of licensing data, such as moving from a nominal to an ordinal driven data system. For example, NARA and the Research Institute of Key Indicators (RIKI) have entered into an exclusive agreement for the future development of licensing measurement strategies via differential monitoring, key indicators for licensing and program quality, and risk assessment approaches. Several validation studies have been completed in testing whether the various methodologies work as intended. A significant Office of Program Research and Evaluation (OPRE) *Research Brief* which developed a framework for conducting validation studies for quality rating and improvement systems has been adapted to be used in licensing measurement.

For additional updates to licensing measurement, please check out and follow these RIKINotes Blog posts. There are and will be many examples of licensing measurement enhancements. Also, although much of the research on licensing measurement has been completed in the ECE field, the methodologies, models, systems, and approaches can be utilized in any human service arena, such as child residential or adult residential services. Also, NARA's chapter in their Licensing Curriculum has been developed into a full blown course, please go to the following web page for additional information: **https://www.naralicensing.org/key-indicator-facilitated-dialogues**

A Guide to the Regulatory Compliance Theory of Diminishing Returns ...

Saturday, April 23, 2022

This blog post will attempt to place the Regulatory Compliance Theory of Diminishing Returns into everyday terms addressing its potential implications beyond the human services and suggest how it can be applied anywhere in which standards/regulations/rules are utilized in the public policy domain.

The Regulatory Compliance Theory of Diminishing Returns was first proposed in the 1970's when several studies were conducted comparing regulatory compliance with program quality in early care and education programs. These studies were expanded to include other child residential programs and similar results occurred in which a plateau or diminishing return in the levels of program quality & child outcomes were observed as regulatory compliance increased from a substantial level to a full (100%) level. Over the past 50 years, this same result was found when these analyses were performed. See the following article published in the Journal of Regulatory Science for additional details: (***https://journals.tdl.org/regsci/index.php/regsci/article/view/108***).

Why is this important from a public policy perspective? It appears from these results that public policies which demand full (100%) regulatory compliance may not be in the best interest of providers nor clients being served. The Regulatory Compliance Theory of Diminishing Returns has implications for all of regulatory science and would apply to any field in which a closed system of standards/rules/regulations are utilized. Therefore, it is being suggested that the theory be applied to other economic systems involving banking, trade, markets, supply/demand chains, etc… that are heavily regulated. When a more open system of standards/rules/regulations are utilized, the diminishing returns effect is less evident because of the introduction of program quality elements into the equation (see RIKI Technical Research Notes on the balance of regulatory compliance and quality as well as regulatory compliance modeling which clearly demonstrates the differences between open and closed systems).

So what would this look like from a program monitoring perspective? Rather than requiring companies, organizations, or agencies to be in full regulatory compliance, it would focus more on substantial compliance with all standards/rules/regulations and full compliance with key indicator standards/rules/regulations that statistically predict overall regulatory full compliance. This would be a more effective and efficient allocation of monitoring resources that would lead to increased outcomes for clients and better management for providers.

The ultimate goal is to obtain the proper balance of regulatory oversight which is not too stringent nor too lax but rather one that focuses on the right (statistical predictors) standards/rules/regulations producing the greatest impact on clients and providers of service.

Federal, National, and State Reports on Licensing and Differential ...

Sunday, May 08, 2022

Attached are several examples of Federal, national, and state reports on state of the art licensing and differential monitoring initiatives. These reports have helped to shape the research efforts as we move forward with licensing and differential monitoring in early care and education.

Several Federal agencies are well represented, such as the Office of Child Care, the Administration for Children and Families, Health and Human Services, USDA, Assistant Secretary's Office for Planning and Evaluation, Office of Planning, Research, and Evaluation; National Organizations, such as the National Association for Regulatory Administration, National Women's Law Center, CLASP, BUILD, Child Care and Early Education Policy and Research Analysis, and Child Trends; and states, such as Ohio, Minnesota and Illinois.

2018AnnualCCLicensingReport Download aspe-ece-monitoring-paper Download aspe-ece-monitoring-summary Download build-validation-presentation-1 Download cceepra_licensing_and_quality_brief_508 Download coordinated_monitoring_systems_in_early_care_and_education Download enforce-StrongCCLicensing Download Expand Monitoring and Technical Assistance _ CLASP Download final_hhs_usda_joint_monitoring_policy_statement Download final_nwlc_CCDBGUpdate2017 Download Illinois 2019 Day Care Licensing Annual

Report (1) Download Kellogg-Alignment-annotated-bib_ChildTrends_May2020 Download LITEScompelling Download Maine FAQs Download MN Legislative Task Force (1) Download NARA 2017 Licensing Survey Report FINALrev Download necqa-monitoring-presentation Download occ-differential-monitoring Download opre-validation-framework-qris Download Pathways_Summer_2014 Download

Instrument Based Program Monitoring

Tuesday, May 10, 2022

This is an article written back in 1985 that really tied licensing measurement together into a quantitative approach of instrument based program monitoring rather than case anecdotal records and proposed the use of key indicators/predictor rules, risk assessment/weighting of rules, and the introduction of differential monitoring which back then was called abbreviated inspections or inferential inspections.

The article appeared in *Child Care Quarterly* and really did begin to usher in a paradigm shift in licensing measurement and with the introduction of the Theory of Regulatory Compliance the movement from issuing full licenses with 100% regulatory compliance to substantial compliance with all regulations. This article also introduced the *Early Childhood Program Quality Improvement and Indicator Model* as a means for typing regulatory compliance together with quality initiatives, especially technical assistance, training, and professional development which will be addressed in future posts.

I am hoping to do this with several articles that I think are very pertinent to licensing measurement and post summaries of their particular significance for regulatory science and program monitoring. The hope would be that this new series will help to inform future licensing researchers and regulatory scientists regarding the nuances and idiosyncrasies of licensing measurement and regulatory compliance. As one will see, there are many measurement issues with licensing data and how best to analyze licensing data. This new series really started with the post before this one in which Federal, national, and state reports were listed and presented related to licensing and differential monitoring. The subsequent posts will provide a bit more detail of many topics presented in these various reports. These posts will also provide a backdrop to the National Association for Regulatory Administration's Licensing Measurement course which is part of their Licensing Curriculum.

As one will see, there is a need within regulatory science to get at the key measurement issues and essence of what is meant by regulatory compliance. There are some general principles that need to be dealt with such as the differences between individual rules and rules in the aggregate. Rules in the aggregate are not equal to the sum of all rules because all rules are not created nor administered equally. And lastly, all rules are to be adhered to, but there are certain rules that are more important than others and need to be adhered to all the time. Less important rules can be in substantial compliance most of the time but important rules must be in full compliance all of the time.

Rules are everywhere. They are part of the human services landscape, economics, banking, sports, religion, etc… Where ever one looks we are governed by rules in one form or another. The key is determining an effective and efficient modality for negotiating the path of least resistance in complying with a given set of rules. It is never about more or less rules, it is about which ones are really productive and which are not. Too many rules stifle creativity, but too few rules lead to chaos. Determining the balance of rules is

the goal and solution.

Child Care Quarterly Download

Regulatory Compliance Diminishing Returns

Tuesday, May 10, 2022

This article published in the *Journal of Regulatory Science* in 2019 has helped to create an interesting heuristic problematic for the regulatory science field. The essence of the treatise is moving regulatory policy from full compliance with all rules to substantial compliance with all rules and full compliance with specific predictor rules. This is a dramatic departure from regulatory policy that has been promulgated within the regulatory field for the past 100 years.

Because of the regulatory compliance theory of diminishing returns, the following approaches and methodologies of differential monitoring, key indicators for licensing and quality, as well as risk assessment rules have been introduced to the regulatory science field. None of this could have occurred without the introduction of this theory. It has really altered how we approach regulatory compliance from a measurement and program monitoring perspective. The implications of this theory will be further explored in an upcoming post dealing with program monitoring paradigms and the relationship between regulatory compliance and program quality.

2019 Regulatory Compliance Theory of Diminishing Returns Download

International Study of Child Care Regulations Comparing the USA wit...

Tuesday, May 10, 2022

This article published in the *International Journal of Child Care and Educational Policy* in 2013 compared the regulatory compliance within the USA with approximately 20 other countries to determine the emphasis placed upon rules and regulations in the respective countries. It is clear from the results that the USA emphasized more structural aspects of rules and regulations dealing with health and safety while the other countries emphasized the professionalization of the teacher in the classroom.

This article also introduced to an international audience the *Early Childhood Program Quality Improvement and Indicator Model*, now in its 4th edition and its implications with the advent of Quality Rating and Improvement Systems on a large scale in the USA.

International Journal of Child Care and Education Policy Download

Solution to the Child Care Trilemma

Tuesday, May 10, 2022

This article appeared in the *Child Care Information Exchange* in the mid 1990s. In the early part of that decade, Gwen Morgan, one of the pioneers of early care and education (ECE) regulatory science and administration, proposed the child care trilemma. The child care trilemma consists of the delicate balancing act of affordability, accessibility and quality. Dr Morgan's thesis was that you could not change one without impacting the others and the child care field was having difficulty dealing with the trilemma at that point.

The article presents a proposed solution that alters the conventional wisdom of regulatory science and policy by suggesting to not increase adult child ratios but rather decrease it so that one additional child could be cared for by a very highly qualified teacher (BA/MA in ECE) and the additional revenue brought in by the additional child go directly to this highly qualified teacher as a teaching bonus/salary increase. By utilizing such a solution, it addresses all three components of the trilemma of quality, accessibility and affordability without violating any of them.

CCIE Trilemma Solution Article Download

The Use of Contact Hours Rather than Group Size or Adult Child Rati...

Tuesday, May 10, 2022

This article was published in 1980 in *NARA News* as a licensing measurement enhancement. It really grew out of the regulatory compliance need being addressed at the national level with the changes being made in the Federal Interagency Day Care Requirements (FIDCR). There was a concern by many Federal policy makers that the monitoring system was going to be too much of a burden on individual programs in attempting to measure regulatory compliance with the revised FIDCR standards. Interesting this same concern would lead to the development and implementation of the Key Indicator methodology, but more about that in future posts.

For this post, we will just center in on the concerns about how best to measure regulatory compliance with two key rules of the FIDCR: adult child ratios and group size. To measure regulatory compliance with these two rules it was necessary in the past to take painstaking measurements of the number of children and adults at various times during the day in child care programs.

The below article describes a mathematical model "Contact Hours" that can be used as an off-site proxy to determine regulatory compliance without ever stepping foot in a program. There are actually two articles presented here: 1) The original article published in 1980; 2) A 2021 paper based upon the use of the mathematical model in the state of Washington. In this second paper, the Contact Hours mathematical model was enhanced and expanded to deal with potential infection rates in child care programs during the COVID-19 pandemic. State administrators saw it as a solution to determining regulatory compliance without having to make onsite observations which were very restricted during the COVID-19 pandemic in 2020-21. The Contact Hours mathematical model worked very nicely in Washington state determining regulatory compliance but it also helped to

target mitigation efforts in programs that were having infection outbreaks based upon particular threshold levels.

NARA Original Contact Hour Article Download Contact Hour Metric Paper Download

Improving Child Care Quality Through A Coaching Intervention

Tuesday, May 10, 2022

This article was published in 2002 in *Child and Youth Care Forum*. This article built off several studies in Pennsylvania which clearly demonstrated the lack of an effective professional development system, especially involving infant toddler caregivers. The mentoring/coaching intervention as designed and described in this article was revised and enhanced in several other studies to follow in order to address this major gap in the professional development system in Pennsylvania.

These other studies will be described in subsequent posts in which the coaching intervention was utilized by child care health consultants: ECELS-Early Childhood Education Linkage System, was used online: Better Kid Care, and was used as a micro-learning problem solving approach: iLookOut. This line of research helped to complete the *Early Childhood Program Quality Improvement and Indicator Model's* quality initiative sector by adding professional development to Quality Rating and Improvement Systems and Accreditation Systems.

CYFC Coaching Article Download

Regulatory Science's Search for a Program Monitoring Para...

Wednesday, May 11, 2022

Here is a policy commentary manuscript that delineates the key elements or alternate program quality paradigms and their subsequent implications for regulatory compliance measurement and program quality that has been submitted to the *Journal of Regulatory Science*. This manuscript is intended for other licensing researchers and regulatory scientists as they deal with licensing measurement issues in regulatory science. Hopefully it provides some key parameters to consider as the regulatory science field matures into a full-blown science.

A brief comment about the *Journal of Regulatory Science*. This relatively new journal, started publishing in 2013, is an excellent forum for those researchers and scientists who are doing regulatory science related research. It is open sourced and encourages scientists from all content disciplines who have an interest in regulatory science to submit their research to the journal. I have been involved in research and publishing for 50 years and this journal and its approach is a breath of fresh air in their openness, attention to detail, and creating a peer review process that makes sense and is timely. I encourage any regulatory science researcher or scientist to check this journal out for sharing their research (***https://journals.tdl.org/regsci/index.php/regsci/about)***.

Journal of Regulatory Science Fiene Download

Regulatory Science, Differential Monitoring, and Licensing Measurem...

Thursday, May 12, 2022

Attached please find an anthology that contains technical research notes from the past decade on regulatory science, differential monitoring and licensing measurement. I thought it would be helpful to regulatory scientists and licensing researchers to have all these various research notes in one location, so I created this anthology.

Technical Research Notes Anthology1 Download

Licensing Measurement/Regulatory Science Course Resources

Friday, May 13, 2022

Below are a series of resources for the licensing measurement/regulatory science course that are organized as anthologies and summarizing information from the RIKI Publications webpage.

1. Class Syllabus: Lists the 13 classes with a brief summary of what is to be covered in each.

2. Articles: the key articles that describe the theory, paradigm, and model.

3. Reports: A book of readings/reports highlighting the key elements in the methodology.

4. Papers: The Washington State blueprint for validation of their monitoring systems.

5. Webinars: The slide deck that describes the overall differential monitoring model.

6. Posters: Eight posters that summarize the model and its key components.

7. Research Notes: A decade of research notes enhancements to the model and system.

8. National/Federal Reports: Several of the key national publications on monitoring.

9. NARA Reports: Specific reports produced by NARA Consultants.

1Classes Download 2Articles Download 3Reports Download 4Papers Download 5Webinars Download 6Posters Download 7Research Notes Download 8National Federal Papers Download 3aNARA Reports Download

RegalMetrics Introduction

Friday, May 20, 2022

I have discussed licensing measurement a great deal in this blog. Today, I want to introduce a new term to basically describe what I have been discussing with licensing measurement, called Regulatory Metrics or RegalMetrics for short. The reason for doing this is to be better positioned within the burgeoning new science called Regulatory Science. Licensing may be too delimited in its scope while regulatory science is more all encompassing and I feel will be the new science of rules, regulations, and standards.

The same issues are still present within regulatory metrics as they were in licensing measurement, such as how regulatory compliance data distributions are dramatically skewed with intense kurtosis. How best to deal with nominal measurement data? Do we transform the nominal data to ordinal scales as has been proposed in this blog (January 9th Post) into a *Regulatory Compliance Scale* to make it more similar to other more normally distributed program quality data distributions? Another way of thinking about this is in having “Licensing Buckets” for “Full, Substantial, Mid, and Low” regulatory compliance levels (see the Post of January 9th). The need for dichotomization of data is warranted because of the skewed data distributions. How best to minimize false positives and false negative decisions regarding the issuing of licenses based upon regulatory compliance scores. And lastly and probably most significant is how to deal with the introduction of mediocrity into fully compliant programs.

This last issue is a major issue for regulatory science regardless of discipline in how best to address the plateau of quality as programs move from substantial to full regulatory compliance. By not addressing this issue will continue to lead to frustration by consumers and the various industries we regulate in not being able to fully reward our outstanding performers because based upon regulatory compliance scores it is difficult to distinguish between these top performers and the mediocre performers. Regulatory science modeling is excellent at distinguishing between fully compliant programs and those that are having real difficulty with regulatory compliance. Where the models break down is distinguishing between programs that are in substantial compliance and full compliance when it comes to any quality dimension. This is what leads to the public wanting deregulation because the rules just don’t seem to make a difference. And then when there is a tragedy, the push for more regulations in order to protect all individuals so that they do not have the same tragedy repeat itself. It is this constant deregulation versus over-regulation mentality that is so counter productive and not driven by good public policy nor empirical data.

Key Indicators and Risk Assessment Applied to the Ten Commandments

Friday, May 20, 2022

I get asked all the time about what is the difference between the Key Indicator and the Risk Assessment methodologies. Generally I reply with a very academic type of response either explaining the difference given the research literature or the statistical methodologies employed. It hasn’t worked very well and there still is confusion in the field about the differences between what is a key indicator rule and what is a risk assessment rule. So I am going to take a different tack and let’s apply it to one of the most important

sets of rules that has ever existed and see if it helps: The Ten Commandments.

Let's start with the risk assessment methodology and attempt to ascertain which of the Ten Commandments would be a risk assessment rule. What immediately jumps out to me is "Thou Shall Not Kill". This commandment would definitely fall under the "do no harm" rule of risk assessment in attempting to avoid morbidity and mortality concerns. If I were to send this out to a group of Biblical scholars and ask them for their expert opinion, I am guessing that this would be on the top of their list as well. So I feel pretty confident that we could say that "Thou Shall Not Kill" would meet the criterion of being a Risk Assessment Commandment.

Now, let's turn our attention to the key indicator methodology and attempt to ascertain which of the Ten Commandments would be a key indicator rule. This gets a bit tricky because key indicator rules usually don't place individuals at severe morbidity or mortality. But the key indicator rules statistically predictor overall rule compliance. So knowing this one Commandment would help us to know who is most likely to abide by all the other Commandments. That is kind of important from a societal point of view because we would like to have a lot of these people as neighbors; it would be like living in Mr Rogers' Neighborhood. So what do we think could be a good Key Indicator Commandment? Based upon my 50 years of research in producing key indicator rules I would say that "Thou Shall Not Steal" might be a good candidate. I am guessing that there is a deep structure here where a person who is honest is most likely to abide by all Ten Commandments, so it would be an excellent Key Indicator Predictor Commandment. Of course to be certain, we would have to empirically test this hypothesis out which is the cornerstone of the key indicator rule methodology: data utilization.

I hope I have enlightened those of you who may have been somewhat uncertain about the differences between risk assessment rules and key indicator rules. Hopefully this foray into the Biblical literature via the Ten Commandments has helped to make the distinction more clear.

Comparing the CLASS and ERS Program Quality Scales

Saturday, May 21, 2022

Two of the most widely used early care and education program quality tools used in the field are the CLASS: Classroom Assessment Scoring System and ERS: Environmental Rating Scales. Is there an advantage to using one versus the other. In the state of Washington as part of their QRIS: Quality Rating and Improvement System they happen to utilize both. In a study validating their Licensing Decision Making System, I had the opportunity to see them used side by side and wanted to report the results here. In other separate studies conducted in Head Start, Georgia, and Pennsylvania I saw similar results but wanted to wait to have the CLASS and ERS side by side in a specific study.

Here is what I found in making that comparison. In comparing the CLASS head to head with the ERS the correlation between the two scales was $r = .24$; $p < .0001$; $n = 385$. So both scales had a statistically significant correlation which one would expect since they are both measuring classroom quality, albeit from different perspectives.

Where it becomes interesting is when one begins to compare the two with the

Washington state QRIS correlations. The CLASS and QRIS is r = .12; p < .022; n = 385 while the ERS and QRIS is r = .39; p < .0001; n = 385. It appears that the ERS is more sensitive at discriminating differences in QRIS than the CLASS. I further tested this my running one-way ANOVAs: CLASS x QRIS: F = 10.71; p < .0001; n = 385 while the ERS x QRIS: F = 26.534; p < .0001; n = 385. Both are statistically significant but the ERS again shows a much larger F ratio than is the case with the CLASS. To delve more deeply into these differences required looking at some basic descriptive statistics, such as the mean, standard deviation, skewness, and kurtosis. The following chart shows the results.

CLASS/CO ERS Mean 6.14 4.12 Standard Deviation 0.75 0.65 Skewness -4.51 0.12 Kurtosis 33.02 -0.39 ***Comparison of CLASS and ERS Descriptive Statistics***

As one can see from the descriptive statistics there are some major differences between the CLASS and the ERS in how the data distributions play out. The ERS clearly has more variance in their data distribution than the CLASS does. These results are consistent with other studies in analyzing the respective data distributions. I feel that these results are significant for other early care and education researchers, developmental psychologists, and regulatory scientists as they conduct similar studies utilizing these respective tools.

Regulatory Science Metrics Matrix

Sunday, May 22, 2022

The 2 x 2 matrix format has been used in many different contexts when it comes to decision making. I have found the 2 x 2 matrix very useful in regulatory science especially when it comes to measuring regulatory compliance with rules. In this post, I would like to delineate how the 2 x 2 matrix can be used with nominal measurement of regulatory compliance where it is the essence of regulatory science metrics.

RealityCompliance (+)Non-Compliance (-)MeasurementCompliance (+) (++) Expected False Negative (-/+) **Non-Compliance (-)** False Positive (+/-) (–) Expected ***Regulatory Science Metrics Matrix***

In the 2 x 2 matrix above, the *Regulatory Science Metrics Matrix*, we are attempting to measure regulatory compliance comparing the measurement by an inspector with what exists in reality. The (+) = a positive response (there is compliance) and a (-) = a negative response (there is non-compliance). The (++) = compliance was recorded/measured and in reality there really was compliance. This is expected and desirable since we want everyone to comply with the respective rules we are measuring. The (–) = there was non-compliance recorded/measured and in reality there really was non-compliance. This is expected but not desirable; obviously we don't want to find any non-compliance although it is good that the inspector is reliably accurate. The False Positive (+/-) = there was non-compliance recorded/measured but in reality there was compliance. The False Negative (-/+) = compliance was recorded/measured but in reality there was non-compliance.

From a regulatory science point of view and the measurement of regulatory compliance, the (++) and (–) are the two results we want to see; they are expected and desirable. We never want to see a False Negative (-/+), and we would like to minimize False Positives (+/-) whenever possible. In the actual regulatory science world, false positives and negatives do occur and are part of regulatory science. The goal is to minimize them as much as possible. This above *Regulatory Science Metrics Matrix* has become a useful

tool in measuring regulatory compliance and in validation studies related to regulatory science in the human services.

Comparison of Online Mandated Reporter Trainings

Sunday, May 22, 2022

Here is a recently published article on comparing online mandated reporter trainings which highlights the iLookOut Child Abuse Prevention Training program. Very interesting state by state comparisons.

APSAC Article Download

Regulatory Compliance Validation Studies

Sunday, May 22, 2022

Here are five studies that demonstrate validation of the Licensing Key Indicator (LKI), Risk Assessment Methodology (RAM), and Regulatory Compliance Theory (RCT). The studies were done in the states of Georgia (RAM, RCT), Washington (RAM, RCT) national with Head Start (RCT), and internationally in the Provinces of Ontario (LKI) and Saskatchewan (LKI, RAM).

Georgia Core Rule Validation + TRC Download Washington RAM Validation + TRC Download Head Start TRC Download Ontario Tier Licensing Validation Download Saskatchewan KIS + RAM Validations Download

Regulatory Compliance Data Analysis Plan Example taken from Risk As...

Friday, May 27, 2022

Below is a brief technical research note providing an example of a data analysis plan utilizing risk assessment indicators. It provides a means for thinking about how best to implement such a plan from initial design to validation of the plan.

–Risk Assessment Indicator Data Analysis Plan Notes.docx Download

Regulatory Science Paradigm Examples

Friday, May 27, 2022

Below is a policy commentary article just published in the *Journal of Regulatory Science, Volume 10, Issue 1* on regulatory science monitoring paradigms and the relationship between regulatory compliance and program quality. Eighteen key elements are introduced in a series of dichotomies which help to lay out a blueprint and the parameters when thinking about program monitoring and the continuum between regulatory compliance and program quality.

Journal of Regulatory Science Fiene Download

Using SAS to Generate Key Indicators

Tuesday, May 31, 2022

Here is an analysis performed by statisticians from the Province of British Columbia, Fraser Health, Population Health Observatory utilizing SAS rather than SPSS which is the best example of this approach. In this technical research note it outlines very nicely the approach taken that can be utilized by other regulatory scientists and licensing researchers. I highly recommend the statistical approach.

BCKIM Download

National and State/Provincial Presentations Involving Differential ...

Tuesday, May 31, 2022

Below are several national and state/provincial (Massachusetts, Minnesota, Alberta) presentations involving differential monitoring and key indicators.

Future of Monitoring Presentation Download Massachusetts Presentation Download Minnesota Presentation Download Alberta Presentations Download

Regulatory Compliance Validation Study Data Bases

Saturday, June 04, 2022

Last month several regulatory compliance validation studies were posted (May 22nd). For regulatory science and licensing researchers who are interested, the SPSS databases are available through Mendeley Data (**Fiene, Dr Richard (2022), *"Regulatory Compliance Theory of Diminishing Returns"*, Mendeley Data, V1, doi: 10.17632/cchm8w64xd.1**) or by contacting Dr Fiene directly and requesting the respective SPSS database.

Provision of Technical Assistance to States: Better Care for the Ba...

Saturday, June 11, 2022

This is an older report but I thought it was still relevant today, so I wanted to post it for other ECE researchers and regulatory scientists to review and use.

The Better Care for the Babies (BCTB) Project was initiated in April 1989 to help states improve the quality of infant and toddler child care, especially for low-income children whose parents are in the labor force and/or making the transition from welfare to work. The BCTB Project initiated ongoing, negotiated, goal-directed technical assistance with three state interagency teams in Florida, Illinois, and Utah; conducted a national technical assistance forum; and implemented national outreach through the preparation and dissemination of policy papers. The chapters of this case study describe the background and design of the project, the policy context and assumptions, the technical assistance approach and implementation, project actions and policy improvements related to child care quality made by the BCTB states, the project as perceived by key participating state administrators themselves, lessons learned, and recommendations. The recommendations focus on federal mandates that would include incentives, offering states goal-directed technical assistance, coordination of state policies and programs, and conveyance of information to state leaders concerning the influence of child care on child development.

Lessons_Learned_Provision_of_Technical_A

Using Research to Improve Child Care

Tuesday, June 14, 2022

The attached report is as relevant today as it was 25 years ago; it is a synthesis of major issues, policy questions, available research findings and information needs in child care policy, presented in a form that can provide a framework for ongoing dialogue and action by the research community in partnership with state child care administrators and other key stakeholders.

This report builds upon work at the Child Care Policy Research Symposium, sponsored by the
Child Care Bureau, Administration for Children and Families, US Department of Health and Human Services. The Symposium brought together researchers, child care policymakers and state and federal staff for a unique opportunity to discuss current research efforts and the research needs of state child care administrators.

Using_Research_To_Improve_Child_Care_for Download

Licensing Measurement & Program Monitoring Systems eHandBook

Saturday, June 18, 2022

Below is a *Licensing Measurement & Program Monitoring Systems eHandBook* to accompany the *NARA Licensing Measurement and Systems course*. It is recommended to be read along with taking the *NARA course* but it can be read as a stand alone book. It is a short guide to licensing measurement introducing some of the key issues and tenets related to applying regulatory science to human service regulatory administration. It is meant to be read in one sitting but hopefully it will generate a lifetime of questions related to the field of regulatory science.

LMS eHandBook RFiene 2ndc Ed Download

NRCEC: National Research Conference on Early Childhood Virtual Venue

Wednesday, June 22, 2022

Below is the National Research Conference on Early Childhood Program Book which gives the details of the 2022 conference with all presenters and their sessions. The conference will be held June 27-29, 2022. NRCEC presents the latest research on early childhood programs and the young children and families they serve. The virtual venue will host plenaries, breakout sessions, poster sessions, networking discussions, and more. NRCEC promotes conversations between early childhood researchers, practitioners and policy-makers.

NRCEC-2022-Program-Book Download

Research and Practice: Health and Safety of Child Care Centers

Wednesday, June 22, 2022

Health_and_Safety_of_Child_Care_Centers Download

The LMS eBook

Thursday, June 23, 2022

Below is the ***LMS eBook*** containing the original handbook, the webinar slides with notes, the NARA reports, and the technical research notes all together in one volume rather than having them in different posts and in different sections of the website.

-LMS eBook ALL Download

National Research Conference on Early Childhood Poster Presentation

Thursday, June 23, 2022

Here is the link to a poster presentation with Dr Sonya Stevens, Daniel Blevins, and Amber Salzer entitled: ***Identifying Predictive Indicators: The State of Washington Foster Care Home Study.*** The poster presentation was at the National Research Conference on Early Childhood, June 27th – 29th.

https://nrcec2022.ipostersessions.com/Default.aspx?s=69-71-06-39-C6-15-22-0F-7F-C8-75-4F-A1-8E-52-7D

Rwanda Study Utilizing the Theory of Regulatory Compliance

Monday, July 04, 2022

The study examined the relationship between procurement process compliance and procurement
performance of public procuring entities in Rwanda. The objective of the study was to assess the effects of procurement planning on procurement performance; to assess the effects of procurement sourcing and
contract management on procurement performance and to assess the effects of procurement transparency on procurement performance of public procuring entities in Rwanda.

A descriptive survey research design was adopted using quantitative methods and used closed ended
questionnaire as a data collection instrument. The study targeted 94 respondents from five districts located in the northern province of Rwanda. Purposive and stratified sampling techniques were used to select respondents. Data was then analyzed on quantitative basis using Pearson's correlation, multiple linear regression analysis and descriptive statistics.

The regression model used was $LogY = \beta o + \beta 1LogXit1 + \beta 2LogXiit2 + \beta 3LogXiiit3 + \varepsilon t$ and multiple R (correlation) value obtained was 0.995 (99.5%). The model summary depicted from the regression analysis with multiple R (correlation) value of 0.995 (99.5%) indicated a highly positive relationship between the dependent and independent variables and, the overall contribution of the independent variables: procurement plan (P1),

Procurement process (P2), and procurement transparency (or P3) to the procurement performance (or P4) which accounted for 99.04% (R2 = 0.9904) of the variation in the procurement performance.

The research concluded that procurement planning, procurement process compliance and procurement ethics in public procurement had a great significance on procurement performance which led to confirm the relationship between capacity building in procurement and regulatory compliance of government
Procurement entities in Rwanda. As a recommendation, procuring entities should continue to focus more on ensuring compliance to procurement regulations in public procurement to ensure a sustainable procurement performance.

TRC in Rwanda Download

Two Additional Studies Utilizing the Theory of Regulatory Compliance

Monday, July 04, 2022

Here are two additional studies utilizing the theory of regulatory compliance from Kenya published in *International Journal of Human Capital in Urban Management* and the *Journal of Contemporary Urban Affairs* by Dr Wilfred Ochieng Omollo.

ijhcum-volume-5-issue-1-pages-1-18-2020 Download juca-volume-4-number-2-pages-95-108-2020 Download

Theses Utilizing the Theory of Regulatory Compliance

Monday, July 04, 2022

Improving medical records documentation among the health workers remains a major challenge to achieving compliance to medical records documentation SOP in many developing countries. Compliance to medical records documentation SOP can be used to improve health care and protect people against catastrophic health care risks and expenses. Most developing countries have low compliance to medical records documentation SOP and rely on manual systems for documentation. Despite having automated systems in some private and public health facilities, compliance to medical records documentation is still below the acceptable standards. The main objective of this study was to establish compliance with medical records documentation SOP among health workers in Bungoma level 4 hospital, Kenya, with specific objective of determining association between socio-demographic characteristics and compliance with medical records documentation SOP, influence of institutional characteristics and, influence of health workers' IT Proficiency on compliance with medical records documentation SOP among health workers in Bungoma level 4 hospital. The current study adopted an analytical cross-sectional design and quantitative data was collected using self-administered questionnaires, stratified proportionate and simple random sampling techniques were both employed to select 197 health workers sampled from a target population of 400 in Bungoma level 4 hospital. Chi-square, fishers exact, and Binary logistic regression analyses were used to test the association and the relationships between dependent

(compliance with medical records documentation SOP) and independent variables (sociodemographic, institutional, and IT proficiency) respectively, albeit at a 95% confidence interval (CI), frequency tables, pie charts, and bar graphs were used to summarize and present the results. The current analysis confirmed that the compliance level to medical records documentation SOP was indeed very low at 47.2%. Socio-demographic factors such as Cadre (Fisher‟s exact test =24.52; p=0.002), level of education (Fisher‟s exact test =11.26; p=0.042), and work experience $\chi 2$ (8.75, df=5, N =195) p=0.047 were significantly associated with compliance to medical records documentation SOP. On both Institutional characteristics (P=0.023, exp(B)=1.454) and healthcare worker‟s Information Technology proficiency (P=0.027, exp(B)=2.156), positively influenced compliance to medical records documentation SOP. The current study concludes that, cadre, level of education, and work experience were significantly associated with compliance to medical records documentation SOP, Institutional characteristics like technical support, requisite documents, staff training and, health worker‟s information technology proficiency, positively influenced compliance to medical records documentation SOP respectively. The study therefore, recommends an urgent need for the County Government to channel additional funding towards employing more technical staff, procuring the requisite documentation tools, and training of staff on the documentation tools. Otherwise, the facility health management team needs to factor in periodic Information Technology refresher training for health workers, since the majority of health workers in Bungoma level 4 facility seem to have at least an intermediate level of IT proficiency. Future research should incorporate more robust data collection methods like observation checklists, and also consider qualitative methods like Key Informant Interviews to establish better insight on the compliance with medical records documentation SOP across all level 4 health facilities in Bungoma County and beyond.

Compliance with the Medical …. Download

Another Thesis:

Orimba_An Assessment of the Kenya Quarry Sustainability Performance in Nairobi City County Download Maina, Esther Wambui MIST 2022 Download

Kenya’s Use of the Regulatory Compliance Theory of Dimini...

Tuesday, July 05, 2022

I have posted several blog-feeds previously on how Kenya has been very creatively utilizing the regulatory compliance theory of diminishing returns in several industries when it comes to regulatory development and analyses. It has become evident in theses being produced at the university level as well as faculty research being published. This is an excellent example of a developing country taking an out-of-the-box approach to regulatory analysis which should yield both effective and efficient results for their country. Rather than getting into the argument as many highly industrialized countries have done about either more or less regulations, Kenya has embraced the new theory (Fiene, 2016, 2019, 2022) in the search for the productive regulations that produce the greatest output/outcome. I would hope that other countries would follow Kenya’s example as they develop and revise their rules and regulations.

Fiene, Richard, Theory of Regulatory Compliance (October 1, 2016). Available at *SSRN*: https://ssrn.com/abstract=3239691 or http://dx.doi.org/10.2139/ssrn.3239691

Fiene, R. (2019). A treatise on Regulatory Compliance. *Journal of Regulatory Science*, Volume 7, 2019. https://doi.org/10.21423/jrs-v07fiene

Regulatory Compliance Monitoring Paradigms and the Relationship of Regulatory Compliance/Licensing with Program Quality: A Policy Commentary, *Journal of Regulatory Science*, Volume 10, 2022. https://doi.org/10.21423/jrs-v10i1fiene

Three Theories of Regulatory Compliance

Tuesday, July 05, 2022

There are three theories of regulatory compliance that I would like to introduce and probably will spend some time describing in future blog posts but for the time being let me just introduce them.

The three theories of regulatory compliance are the following: Responsive regulation (Ayers & Braithwaite, 1992); Socio-economic (Sutinen & Kuperan, 1999); and Diminishing returns (Fiene, 2019). These three theories help to provide the basic parameters of regulatory compliance within regulatory science. Each deals with a specific parameter of regulatory compliance when it comes to approaches, measurement, and analyses. A great deal has been written about each of these theories by viewing the many search engines available to regulatory scientists and licensing researchers.

For the interested regulatory scientist and/or licensing researcher, I would suggest beginning with the three publications below as a starting point:

Ayers, I. & Braithwaite, J. (1992). *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.

Sutinen, J.G. and Kuperan, K. (1999) A Socio-Economic Theory of Regulatory Compliance. *International Journal of Social Economics*, 26, 174-193.

Fiene, R. (2019). A treatise on Regulatory Compliance. *Journal of Regulatory Science*, Volume 7, 2019. https://doi.org/10.21423/jrs-v07fiene

Key Indicators and Risk Assessment Rule Metrics Revisited (RIKINote...

Thursday, July 07, 2022

I have posted on licensing metrics in this blog several times and wanted to provide an update to the latest thinking related to the relationship between these two methodologies based upon a hypothetical risk assessment scale. This is provided for those licensing researchers and regulatory scientists who are interested in the measurement dynamics of licensing/regulatory data. These concepts are pertinent to regulatory science in general and are not specific to any content area. A graphic display of this relationship is provided in the attached document with a brief explanation of how key indicator rules and risk assessment rules are related.

As I have said in previous blogs and publications, risk assessment rules are to mitigate the relative risk to clients while key indicator rules are predictor rules and predict overall regulatory compliance with all rules. Risk assessment rules are the “Do No Harm” rules while key indicator rules are more like the “Do Good” rules.

The important factor in any differential monitoring system is finding the right balance of risk assessment and key indicator rules. We always want the approach to be cost effective and efficient at the same time. Again effectiveness is more pertinent to the risk assessment rules while efficiency is more pertinent to the key indicator rules. This is easier said than done.

KIS RAM Graphic Notes Download

Organization of the NARA and RIKI Websites: What is Available and W...

Thursday, July 07, 2022

For those of you who are interested in the NARA Licensing Measurement Course I wanted to provide a location map on where you can find all the resources for the course because they have grown a great deal over the years.

On the NARA website you will find the following (https://www.naralicensing.org/key-indicators):

Brochure describing the various methodologies

eHandBook

Technical Research Notes

All the NARA Related Reports

Regulatory Compliance/Science Theoretical Papers

Powerpoint/Webinar Slides with Notes

On the RIKI Website you will find the following (https://rikinstitute.com/):

Introduction

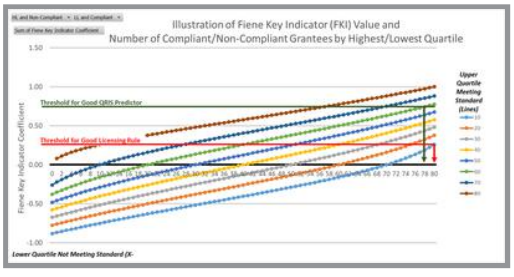
RIKI Notes Blog Posts

All the Publications and documents related to Licensing Measurement

Fiene Key Indicator Coefficients

Thursday, July 14, 2022

Below is a graphic that depicts the key thresholds for the use of the Fiene Key Indicator Coefficients in a differential monitoring approach. The graphic provides an illustration of the Fiene Key Indicator (FKI) values and the number of compliant/non-compliant programs by highest and lowest quartiles. It also provides the thresholds for a good licensing rule and a good QRIS: Quality Rating and Improvement System predictor. Licensing researchers and regulatory scientists can use this graphic in making a pass/fail decision tree with their particular rules/regulations/standards determination in constructing a Key Indicator Instrument.



Theory of Regulatory Compliance Utilized in Assisted Living Monitor...

Wednesday, September 28, 2022

Here is a very interesting article utilizing the theory of regulatory compliance in assisted living monitoring and enforcement via a national survey: ***Promoting Quality of Life and Safety in Assisted Living: A Survey of State Monitoring and Enforcement Agents***.

Our goal was to learn about monitoring and enforcement of state assisted living (AL) regulations. Using survey responses provided in 2019 from administrative agents across 48 states, we described state agency structures, accounted for operational processes concerning monitoring and enforcement, and documented data collecting and public reporting efforts. In half of the states, oversight of AL was dispersed across three or more agencies, and administrative support varied in terms of staffing and budget allocations. Operations also varied. While most agents could deploy a range of monitoring and enforcement tools, less than half compiled data concerning inspections, violations, and penalties. Less than 10 states shared such information in a manner that was easily accessible to the public. Future research should determine how these varied administrative structures and processes deter or contribute to AL communities' efforts to implement regulations designed to promote quality of life and provide for the safety of residents.

A copy of the article is attached here:

Assisted Living Enforcement and Monitoring

Minnesota Department of Human Services Child Care Regulation Modern...

Thursday, September 29, 2022

Below is a presentation done by NARA – National Association for Regulatory Administration consultants regarding the Minnesota Department of Human Services Child Care Regulation Modernization Project, an innovative and cutting edge licensing and program monitoring initiative.

Minnesota DHS Child Care Regulation Modernization Download

Nomination and Initiation into Sigma Xi, the Scientific Research Ho...

Saturday, October 01, 2022

I received this email today:

Congratulations on your nomination and initiation into Sigma Xi, The Scientific Research Honor Society!

If you have any questions concerning Sigma Xi, please do not hesitate to contact the Society's Membership Office.

Once again, congratulations and welcome to Sigma Xi.

Best Regards,
Sigma Xi Membership and Chapter Services

Province of Saskatchewan to Undertake New Study Piloting An Early C...

Tuesday, October 18, 2022

Starting this Fall-Winter 2022-2023, the **Province of Saskatchewan, Ministry of Education** will be conducting a study with the assistance of the **National Association for Regulatory Administration** on a Quality Indicators Tool (the ***Saskatchewan Early Childhood Quality Indicators Tool***). The Ministry of Education will be the first to attempt utilizing an early childhood quality tool based upon the key indicators' methodology as designed and implemented by Dr Richard Fiene, the author/creator of the methodology and the **National Association for Regulatory Administration** who is the official disseminator of the methodology.

The **Province of Saskatchewan's Ministry of Education** has been at the forefront of licensing and differential monitoring in conducting several cutting edge and groundbreaking research studies into the validation of differential monitoring, licensing

key indicators and risk assessment methodologies. They are clearly in a leadership role in North America and in the world when it comes to utilizing these innovative methodologies. They are the first jurisdiction to have validated both their differential monitoring key indicator and risk assessments systems at the same time.

This Blog will keep an up to date progress report as they move forward with this initiative and the results of their pilot study (a monthly or every other month progress report will be issued via this RIKINotes Blog). The results of the study will have wide spread ramifications in attempting to improve early care and education programs in the most cost effective and efficient manner possible in both Canada and the USA, especially now with the pressures that have been placed upon the field post COVID19.

Below is the ***Final Validation Report*** that was completed last year on the Saskatchewan Differential Monitoring System which has a draft of the Quality Indicators Tool, it is towards the back of the report.

4-Saskatchewan Final Report SKECQI Download

Origins of the Saskatchewan Early Childhood Program Quality Indicat...

Wednesday, October 19, 2022

Many of you have asked about the origins of the Saskatchewan Early Childhood Program Quality Indicators (SKECPQI) Tool. The tool originated based upon the extension of the key indicator methodology into more program quality initiatives that have sprung up in several jurisdictions in the past two decades. These quality indicators are intended to be used alongside the licensing key indicators that have been developed in many of these respective jurisdictions.

So where did these quality indicators come from? The first couple are from the professional development arena dealing with the level of staffing and the use of a developmentally appropriate curriculum. There is an additional quality indicator which comes specifically from Saskatchewan's quality initiatives dealing with the program's environment. Another quality indicator dealing with coaching is also suggested but is still under development in Saskatchewan so it will not be utilized as part of the research pilot study in Saskatchewan.

The next two quality indicators are drawn from Quality Rating and Improvement Systems (QRIS) dealing with family engagement which became key indicators of overall quality scores in QRIS. These quality indicators build nicely off of licensing key indicators because this is an area that is not measured very often in licensing rules/regulations.

The last five quality indicators are drawn from the specific quality tools that have been utilized a great deal in the early childhood/child care research literature, the Environmental Rating Scales (ECERS, ITERS) and the Caregiver Interaction Scale (CIS). The specific quality indicators are the following: Communication and Reasoning from the ECERS, and Communication & Conversations from the ITERS; and Listening Attentively

and Speak Warmly from the CIS.

There are nine quality indicators scored on a 1-4 Likert Scale similar to how the CIS is scored by assessing the adequacy of the response to each quality indicator. As stated in the above paragraph, this tool could be used in conjunction with a Licensing Key Indicator tool or a Risk Assessment tool as part of a differential monitoring approach to doing abbreviated inspections which is utilized by many jurisdictions presently. Please see previous blog posts for more information about differential monitoring and abbreviated inspections which has been suggested by the CCDBG Legislation.

The Basic Tenets and Implications of the Theory of Regulatory Compl...

Tuesday, November 01, 2022

The essence of the theory of regulatory compliance has to do with the law of diminishing returns as one approaches full 100% regulatory compliance. This effect related to diminishing returns applies to all industries and not just to the human services. Another tenet of the theory is the nature of regulatory compliance data being skewed and the resultant difficulty in identifying the top performers because so many mediocre performers are in the mix. With regulatory compliance, the data distribution will not be normally distributed.

The implication of the above is the need to search for the right rules rather than having full compliance with all rules. It is not cost effective or efficient to emphasize full compliance when there are specific rules that have a disproportionate impact on overall regulatory compliance and outcomes. The use of abbreviated inspections, such as key indicators and risk assessment become options in this search for the right rules. Searching for these most effective rules then makes for a more efficient monitoring system, i.e.: differential monitoring.

These are the major tenets of the theory of regulatory compliance and its implications for the regulatory science field.

Letter to University Leadership from Concerned Faculty at Penn State

Friday, November 18, 2022

Here is a letter from over 400 Penn State Faculty members concerned about a leadership decision to not follow through with its commitment to creating a Center for Racial Justice. Please see the following letter for the issues and the faculty who have signed on.

Letter to University Leadership from Concerned Faculty at Penn State Download

Real Risk versus Potential Risk in Differential Monitoring Approaches

Wednesday, December 14, 2022

There is the need to revise the risk assessment methodology that has been used in the differential monitoring approach. In the past risk assessment has always been listed along with the key indicator methodology as the two approaches for differential monitoring and abbreviated monitoring inspections. However, it has become clear that there is another level of risk within a monitoring system that should be addressed and that involves potential risk. Potential risk is the possibility that because of certain characteristics or factors possessed by a facility or program that may place it at increased risk when you observe its component parts. An example could be that a program is located in a high crime area that places clients at increased risk to harm. It doesn't guarantee that it will happen but if certain safeguards are not in place it increases the potential risk that something negative could occur.

Potential risk are variables that should be looked upon as separate from actual licensing rules or standards and should be assessed prior to a monitoring review. It would be similar to a pre-audit looking for potential predictor risks. And this is where this new concept of risk combines the previous risk assessment and key indicator methodologies. Risk assessment (RA) is what it purports to be, an assessment of morbidity or mortality risk because of non-compliance with a specific rule or standard. A key indicator (KI) is a predictor rule or standard that predicts overall regulatory compliance or program quality depending on the type of measurement undertaken. The new potential risk (PR) metric is a combination of both. It would look something like this:

RA + KI = PR

The other nuance to potential risk is that it will be very individual to a specific facility or program. No two programs are the same. What may be potential risk indicators for one program may not be for another. It will be very important to determine the proper path for each program so that they can be successful in their implementation efforts. Potential risk assessment is very individual, there probably will not be a one size fits all approach.

This post is for regulatory scientists to think about as they move forward in the further development of differential monitoring approaches, especially those approaches that involve risk assessment.

Ways of Improving Compliance Measures and Implementation: The Case ...

Tuesday, December 20, 2022

An interesting article about ways to improve compliance measures and implementation in Ukraine.

The purpose of the article is to study relatively new phenomenon of compliance (Theory of Regulatory Compliance, Fiene, 2016, 2019) for Ukraine and to identify its priority areas of development that should bring the domestic regulatory framework closer to world practice

Licensing Measurement, Regulatory Compliance, Program Quality, Qual...

Monday, December 26, 2022

On the 200th RIKINotes Blog Post, I thought it would be useful to summarize the previous blog posts by the major areas of research because the research fits into neat overall buckets. The buckets build off the title of this post starting with ECPQIM/DMLMA which is shorthand for the overall model I have used to assess program quality and standards over the past 50 years. The original model actually started as a regional model I devised when I was still a psychology graduate student at Stony Brook University in New York. ECPQIM/DMLMA stands for Early Childhood Program Quality Improvement and Indicator Model/Differential Monitoring Logic Model and Algorithm.

From there, the research avenues fall into regulatory compliance and program quality sectors. In assessing these two sectors, they can be further delineated as licensing measurement and quality initiatives. And to further drill down in these research domains there is the theory of regulatory compliance and differential monitoring within licensing measurement; with coaching/mentoring and QRIS (Quality Rating and Improvement Systems) within quality initiatives.

Probably the most significant area of research and the one that has garnered the most research interest over the years has been the theory of regulatory compliance. This theory is the key to all the other areas of research because without it, several of these areas would not have occurred. For example, differential monitoring and licensing key indicators and risk assessment rules would never have come into fruition. This would have changed the ECPQIM/DMLMA modeling tremendously. But since the theory has played out in multiple studies and supported by a good deal of evidence and empirical data, it has now been used in several developing countries as their policy makers think through the best way to apply regulatory science to public policy in several different industries. That is the other wide reaching scope of the theory in that it is not pertinent only for the human services but for any industry that utilizes rules, regulations or standards.

The theory of regulatory compliance and differential monitoring form the cornerstones to human services licensing measurement, while coaching/mentoring and QRIS are the two most prominent examples of quality initiatives. The latter are more focused on the early care and education field than the human services field in general. Licensing measurement is more generic and applies throughout all human services. I have been able to fine tune several measurement strategies over the past 50 years to make measuring regulatory compliance more accurate and sensitive to changes in quality assessments. The regulatory compliance theory of diminishing returns is the paramount example and kingpin of this fine tuning.

Regulatory compliance and program quality form a delicate balance that needs to be adjusted depending upon the respective standards found in each system. This is the goal of the ECPQIM/DMLMA modeling in attempting to attain that proper balance. We want to make sure that our rules/regulations protect children but not at the expense of the best quality of services which push the envelope. I have attempted with my research to make

licensing and regulatory compliance an equal partner with program quality and quality initiatives.

Hopefully you have found in the approximate 200 blog posts over the past decade helpful in this pursuit of increasing the overall quality of services for children and/or clients that you are responsible for serving. I encourage the interested reader to check out the blog posts, the introduction page to RIKIIIc, and the selected publications page. All the above concepts and avenues of research have many examples on these pages.

Rick Fiene, Ph.D., Senior Research Psychologist/Regulatory Scientist, Research Institute for Key Indicators (RIKIIIc), National Association for Regulatory Administration, and Professor of Psychology (ret), Edna Bennett Pierce Prevention Research Center, Penn State University

Creating National Standards for Any Industry: An Example from the H...

Friday, December 30, 2022

Creating national standards for any industry based upon empirical evidence is possible in analyzing research over the past 50 years in human services. Research completed in human service regulatory science gives a pretty good blueprint in how this can be accomplished. Let's look at what has been done in early care and education (ECE), and child residential programs.

The key starting point is the unit of analysis which in ECE programs would be the facility: a child care center or home. In other industries, it could be an agency, a factory, a store, a bank, etc.… But back to the ECE example. There will be rules/regulations/standards applied to the facility, i.e., child care center or child care home. These will generally range from health and safety rules/regulations to state of the art program quality standards in most measurement protocols. Assessments will be done with many individual facilities and aggregated appropriately: regulatory compliance with rules and program quality observation tools. It is critical that an instrument based program monitoring system be utilized and not an anecdotal narrative based data collection system. It is too difficult and time consuming to analyze case studies on a large scale. Taking case studies on a

sampling basis from the quantitative data base can work and provides a balance between quantitative and qualitative data analysis.

Once these data are aggregated it will be able to determine trends in the data, which rules/regulations are most critical in predicting overall compliance, what are the key quality indicators, which rules or standards that place clients at greatest risk of morbidity and mortality, etc… It is suggested that this be done with multiple samples, these could be done regionally, statewide, nationally, etc. depending on the level of data accessibility. By doing this and utilizing factor analysis it will be able to determine are there any commonalities in the rules/regulations/standards? Generally there is!! Let's use ECE facilities as an example. In ECE, research went from individual key indicators at the state licensing agency level to generic key indicators (common rules across state licensing agencies) to a national voluntary set of standards (*Caring for Our Children Basics*). This same blueprint could be used in any industry and it would help to make for more effective and efficient monitoring systems if it were done.

Any industry that is regulated or accredited could follow the above blueprint in moving from individual sites to aggregate data and generating national, international, industry standards to follow based upon empirical evidence. And through factor analyses it would be possible to streamline the rules to a core set of the most predictive key indicators. This is how it was done in the ECE field.

For those individuals who are interested in learning more or pursuing this, take a deeper dive into this blog and the Selected Publications page of this website for details. Also, get in touch with the National Association for Regulatory Administration (NARA) who has consultants who can help design these types of measurement systems (NARA).

The New Normal for Early Care and Education

Sunday, January 01, 2023

As we begin a new year and reflect on where early care and education (ECE) is headed, we may need to acknowledge a new normal for the field. I am sure many of my colleagues in ECE will not be happy with what I am about to share but I have always been driven by empirical data and this is what I am observing in the ECE field at this point.

We are all disappointed with the lack of action at the federal level to revamp the ECE system into a much improved and enhanced system. The opportunity was there at the beginning of the pandemic and there was a great deal of debate and discussion but it led nowhere. We are left with an ECE system having difficulty in finding adequately trained staff on a daily basis. If anything, the ECE field looks worse today then it did three years

ago and that is saying alot.

So what can we do? I would suggest that we go back to the basics. The original philosophy of licensing and regulatory science is “do no harm”, let’s begin there. We need to make sure that all our children are in healthy and safe environments. We need to revisit the child care trilemma and focus on the availability and affordability side of the equation and put quality on the back burner again. I hate suggesting this but we have no other choice at this point or the system is going to implode. We need to make certain that our children do not lose any additional ground which has been so evident during the pandemic.

Once we have re-established a solid base, then and only then, we can begin to address quality of services via regulatory science, quality rating and improvement systems, and professional development of ECE staff: an Early Childhood Program Quality Improvement and Indicator Model. We do have several excellent examples that I have had the fortune to be part of which should provide some guidance, such as broader adoption of *Caring for Our Children Basics* as the core set of rules/regulations/standards for the ECE profession. Full implementation of the new Head Start Monitoring System and the full roll out of the iLookOut Learning Platform for ECE staff.

Revision/Updating the Regulatory Compliance Key Indicator Metric (F...

Sunday, January 08, 2023

Over the past decade in utilizing the Regulatory Compliance Key Indicator Metric (RCKIm) it has become very clear that false negatives needed to be controlled for because of their potential to increase morbidity and mortality. When dealing with regulatory compliance and full compliance as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIM)(see matrix below), false negatives could be either eliminated or reduced to the point of no concern.

However, in the event that substantial compliance rather than full compliance is used as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIM) this becomes a problem again. There is the need to introduce a weighting factor.

In utilizing the RCKIm, the following equation/algorithm is used to produce the Fiene Coefficient (FC):

FC = ((A)(D)) – ((B)(C)) / sqrt (WXYZ)

This RCKIm needs to be revised/updated to the following in order to take into account the need to again eliminate false negatives being generated by the results of the equation/algorithm; this can be accomplished by cubing B:

FC* = ((A)(D)) – ((B^3)(C)) / sqrt (WXYZ)

By this simple adjustment to cube (B) it will basically eliminate the use of any results in which a false negative occurs when substantial compliance is determined. The table below displays the variables of the Regulatory Compliance Key Indicator Matrix (RCKIM).

RCKIM High RC Group RC Low Group Totals KI In Compliance A B^3 Y KI Out of Compliance C D Z Totals W X Regulatory Compliance Key Indicator Matrix (RCKIM)

In the above examples, FC can be used when the High RC Group is at full regulatory compliance, but FC* needs to be used when the High RC Group is including substantial as well as full regulatory compliance. By using both equations/algorithms, it better deals with the results of the Regulatory Compliance Theory of Diminishing Returns.

The results should clearly show that only positive (+) coefficients will become Regulatory Compliance Key Indicators versus those rules that do not show any relationship to overall regulatory compliance (0), but now the negative (-) coefficients will more clearly show when any false negatives appear and clearly not include them as Regulatory Compliance Key Indicators. This is a major improvement in the Regulatory Compliance Key Indicator methodology which clearly demonstrates the differences in the results. It provides a gateway in those regulatory compliance data distributions where substantial regulatory compliance is heavily present while full regulatory compliance is not. This could become a problem as the regulatory science field moves forward with the use of the Regulatory Compliance Theory of Diminishing Returns. Below are some data displays to support this revision/update.

RCKIM-RCKIm FC7 Download

The Key Elements for a High Quality Early Care and Education Program

Monday, January 16, 2023

Here are key elements that should be present in a high quality early care and education (ECE) program that any parent should be looking for when selecting their child care arrangement:

- Qualified ECE teachers.
- There is a stimulating and dynamic classroom environment where children are viewed as competent learners.
- A developmentally appropriate curriculum is used based upon the assessed individual needs of children.
- Opportunities for families and staff to get to know each other.
- Families receive information on their children’s progress regularly using a formal process.
- Early childhood educators encourage children to communicate.
- Early childhood educators encourage children to develop reasoning skills.
- Early childhood educators listen attentively when children speak.
- Early childhood educators speak warmly to children.

Licensing Measurement, Regulatory Compliance, Regulatory Science Re...

Saturday, January 28, 2023

For those licensing and regulatory administrators, researchers, scientists, below are attached several publications that should be helpful in learning more about human services licensing measurement, regulatory compliance and regulatory science applied to the human services.

There are five resources: 1) A short and concise ebook that gives an overall view of licensing measurement and monitoring systems. 2) An anthology of research articles which provide much of the background, research, and theory behind the early childhood program quality improvement and indicator model consisting of regulatory compliance, quality initiatives, and professional development. 3) A book that compiles many of the state reports written on the differential monitoring approach and its associated methodologies. 4) The lecture slides with notes which provide the overview and an in-depth review of the model and theory. 5) And lastly, the research notes that have been written over the past decade making refinements and updating the theory, model, approach, and methodologies.

1eHandBook-key indicator Download 2ECPQIM Articles Download 3riki-book-of-readings-3rd-edition 2023 Download 4licensing measurement webinar slides Download 5Research Notes Download

Data Distributions in Regulatory Science

Sunday, January 29, 2023

Data distributions in the human services as they relate to regulatory compliance are generally very skewed distributions which means that the majority of facilities being assessed/inspected will usually fall very close to the 100% compliance level. There will also be an equally large number of facilities that are in substantial regulatory compliance (99% – 98% compliance levels). And then there are much fewer facilities that are either at a mid or low level of regulatory compliance (97% or lower compliance levels). One might say that getting a score of 97% on anything doesn't sound like it is mediocre or low but keep in mind we are addressing basic health and safety rules and not quality standards. So having several health and safety rules out of compliance is a big deal when it comes

to risk assessment. It could be argued that a state licensing agency was not upholding its gatekeeper function by allowing programs to operate with such regulatory non-compliance.

Why is the regulatory compliance data distribution important from a statistical point of view. Generally when we are dealing with social science data, the data are normally distributed or pretty close to being normally distributed. It is a trade mark of a well designed assessment tool for example. So when data are compared to other normally distributed data, there is a good chance that some form of a linear relationship will be ascertained, albeit, not reaching statistical significance in many cases but linear regardless.

When a very skewed data distribution is one of the variables as in the case with regulatory compliance data and it is compared with a normally distributed data set such as a program quality tool, ERS or CLASS. Well, the result is generally a non-linear relationship with a marked ceiling effect or plateau effect. In other words, the data distribution is more curvilinear than linear. From a practical standpoint this creates selection problems in the inability to identify the best programs that have full regulatory compliance. This can create a public policy nightmare in that those programs which are in substantial but not full regulatory compliance are as good or in some cases of higher quality than those programs in full regulatory compliance. The interesting question is does the combination of normally distributed data distributions with variables that have skewed data distributions always produce this nonlinear result?!

And lastly, will having two variables that are skewed data distributions produce a more random result than if one of the two above conditions are present?

A Potential Reason for Skewed Regulatory Compliance Data Distributions

Sunday, January 29, 2023

One thing that is ever present with regulatory compliance data distributions is that they are terribly skewed. See the previous post which provides a definition of skewed distributions and their implications. This post is going to attempt to provide a potential answer to why the data base is skewed.

At first, I was led to believe that potentially the skewness in the data was a result of the rules that being stringent enough, in other words, the health and safety standards were too easy to comply with. That could definitely be a contributing factor but this is not the case in all instances when one compares state human service rules and regulations and the Head Start Performance Standards. I think a much deeper structure may be operating that is more philosophical rather than practical.

The philosophy of regulatory compliance and rule formulation is one of risk aversion. In other words, how do we mitigate risk that potentially increases the chances of mortality or morbidity in the clients being served when a specific rule is out of compliance. This philosophy emphasizes the elimination of a risk, taking something away rather than adding to it. It is essentially, “Do No Harm”. It is interesting to note that generally regulatory compliance scoring is nominal in being either “Yes” or “No”; and a lower score is better than a higher score, there are fewer violations of rules. Not the way most

assessment tools are designed.

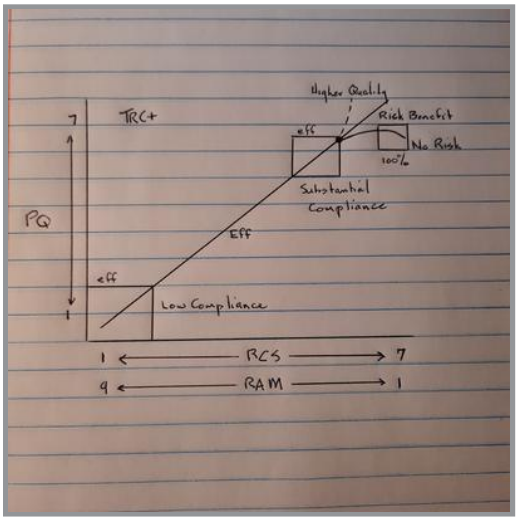
For example, when one looks at program quality, this system is based upon the open-endedness adding to rather than taking away. It is all about, “Do Good” rather than “Do No Harm”. Generally when you look at the data distributions here, they are more normally distributed without the skewed nature of regulatory compliance data distributions. Generally program quality scoring is ordinal in nature on a Likert Scale. A higher score is better than a lower score. Makes sense in that when you have more of a good thing, the higher the score. And the philosophy of program quality is one of improvement with relatively little emphasis on risk aversion.

This is an alternate explanation to why regulatory compliance data distributions are so terribly skewed in comparison to other program quality measures.

TRC+: Regulatory Compliance Theory of Diminishing Returns

Sunday, January 29, 2023

Here is an updated Regulatory Compliance Theory of Diminishing Returns (TRC+)(Fiene, 2023) graphic which captures all the key elements of the theory related to risk assessment (RAM), key indicators (KIM), effectiveness (Eff), efficiency (eff), quality (PQ), risk benefit, and regulatory compliance scaling (RCS).



From the above graphic, this updates the original graphic on the RIKI Introduction Page. It places RAM and RCS in place of the regulatory compliance horizontal scale. The RCS scale is on a 7 point scale just as the PQ scale is. It also clearly demonstrates the differences between efficiency and effectiveness measures by depicting the RAM (Eff) and KIM (eff) metrics. And the essence of the theory demonstrates the curvilinear nature of the relationship between PQ and RC at the substantial compliance level. The trade offs in moving from substantial to full (100%) compliance with the benefit of no risk versus moving from substantial to higher quality benefiting the client but not reducing the risk.

The Risk Assessment Matrix and Key Indicator Matrix

Sunday, January 29, 2023

This post depicts the relationship of the risk assessment matrix (RAM) and the Key Indicator Matrix (KIM) with one embedded within the other. It clearly demonstrates how the two matrices are related by risk aversion and the mitigation of such risk for clients. This matrix builds off a previous post regarding the RAM and KIM matrices but that post dealt with more of the statistical aspects of the methodologies.

RAM + KIM *Probability* Matrices Low Medium High Low 1 2 (KIM Low) 3 ***Risk*** Medium 4 5 6 High 7 8 (KIM High) 9 **Risk Assessment Matrix (RAM) + Key Indicator Matrix (KIM)**

The above matrices demonstrate how RAM deals with risk and probability of rule non-compliance while KIM deals with the distinction between medium rule non-compliance with a low compliant and a high compliant group in a more predictive fashion. The key element here is for risk aversion and to reduce risk as much as possible. Please refer back to the previous post which depicts how RAM and KIM which measure effectiveness and efficiency respectively in a differential monitoring approach as suggested through the Regulatory Compliance Theory of Diminishing Returns (TRC+). This is a delicate balancing act in determining the most effective and efficient approach utilizing the two methodologies. The purpose of the above table is to show the relationship between the two methodologies.

Regulatory Compliance and Quality Programs

Thursday, February 02, 2023

Below is an article by Freer and Fiene (in press) to be published in the ***Journal of Regulatory Science*** this month that describes the need to balance regulatory compliance and quality addressing the constraints and opportunities for integration. It provides a unique perspective on how to develop this delicate balancing act.

Management systems for regulatory compliance and quality programs are examined in this paper from the standpoint of their potential integration and in terms of the concept of a process. The paper identifies five common drags on management system optimization and outlines a scoring system that organizations may use to evaluate their management systems for potential adoption of an integrated process-based program.

1Compliance and Quality Paper

ECE Professional Development and Accreditation

Wednesday, February 08, 2023

Here are two articles from the past that highlight early care and education professional development and accreditation and other program quality initiatives that are still pertinent today, that is why I am sharing them today. Take a look at the two articles, they will provide additional support for improving the overall quality of child care.

CCAC Issue Brief Download America's Child Care Problem Supplementary Materials Download

Kenya's Innovative Use of the Theory of Regulatory Compli...

Wednesday, February 08, 2023

Kenya, in particular researchers from Kisii University, is using the theory of regulatory compliance in a very useful way to impact their regulatory environment and to promulgate effective and efficient regulations related to various industries. This study by Dr Wilfred Ochieng Omollo & George Makua Ogendi is the most recent example: Planning and Conservation of Urban Riparian Reserves.

Planning and Conservation of Urban Reserves Download

Integrative Monitoring, Differential Monitoring or Inferential, Ins...

Saturday, February 11, 2023

The purpose of this blog post is to point out the intersections, differences and similarities of integrative, differential/inferential and coordinated monitoring as used in the monitoring of human service programs. Program monitoring has changed over the years in that not only has it grown in the types of monitoring done, such as process, compliance, outcome monitoring, etc.; but also in the functional aspects of monitoring as delineated with integrative, differential, and coordinated monitoring. Much has been written in the research literature about the types of monitoring but not as much regarding the functional aspects of monitoring probably because it is much newer and has grown with the various types of monitoring being used in different contexts.

Coordinated monitoring deals with monitoring across similar service types, for example, in early care and education, monitoring would be done using similar standards in Head Start, child care, preschool, etc. This is an effective and efficient approach which has been demonstrated through the creation and dissemination of *Caring for Our Children Basics* as a core set of standards for all these various settings. The US Dept of Health and Human Services has advocated this particular approach.

Differential monitoring focusing on the use of abbreviated or targeted inspections of programs that have a history of high regulatory compliance with specific rules or standards. It means spending more time and doing a more comprehensive review of those programs having difficulty complying with specific rules, these can be based upon risk assessment or predictive value of overall compliance. This is a very efficient approach which has been demonstrated to save time in monitoring reviews. Many states in the USA and provinces in Canada use this approach. The US Office of Head Start has experimented with the approach.

Instrument-based program monitoring utilizes instruments, tools, or checklists for recording all data when a review or inspection is completed. It is different from the case review or anecdotal type of record keeping. This approach started in the late 1970's, early 1980's when it was introduced by the Children's Services Monitoring Transfer

Consortium, a federally funded research project consisting of California, Michigan, West Virginia, Pennsylvania and New York City. Its development occurred parallel with the development of differential monitoring but with particular emphasis on the metrics or measurement domain when it came to tool development. The ***Child Development Program Evaluation Scale*** was a major tool developed from this initiative.

Integrative monitoring is a relatively new approach to monitoring in which the emphasis is on integrating regulatory compliance rules with quality programming standards. Note the emphasis is on the rules and standards and not on who gets applied to those rules and standards nor how they get applied. However, combining integrative monitoring with differential monitoring is an interesting research focus which could be a very effective and efficient approach in combining these two perspectives. In the past, licensing and quality programming have generally been in their own silos when it comes to program monitoring. Integrative monitoring removes them from these silos and suggests building a continuous metric that starts with the health and safety aspects of rules and adds in the quality pieces on top of the rules. Presently, quality initiatives, such as Quality Rating and Improvement Systems, Accreditation, and Professional Development systems are examples of standards that could be used to build upon health and safety licensing rules.

There appears to be interest in pursuing an integrative monitoring approach in several jurisdictions in the early care and education field but this interest extends beyond and has been suggested more broadly by a recent article published in the *Journal of Regulatory Science* by Freer & Fiene (2023). *Regulatory compliance and quality programming: Constraints and opportunities for integration*, Volume 11, Number 1, 1-10 (***Journal of Regulatory Science***). The interested reader may want to take a look at the article, it does provide a unique model for pursuing integrative monitoring. Also, one may be interested in Fiene's eHandBook on *Licensing Measurement and Monitoring Systems: Regulatory science applied to human services regulatory administration* available at **https://RIKInstitute.com.** This eHandBook provides the basics of licensing measurement and program monitoring metrics.

Here is a graphic that has been used to describe a logic model for ECPQIM: Early Childhood Program Quality Improvement and Indicator Model/Differential Monitoring Logic Model and Algorithm (DMLMA) which overlays the monitoring approaches (Coordinated, Instrument-based, Differential/Inferential, and Integrative) with the logic model.

ECPQIM-DMLMA Graphics Download

Licensing Measurement and Monitoring Systems 2nd Edition

Saturday, February 11, 2023

Below is the second edition of the ***Licensing Measurement and Monitoring System eHandBook***: Regulatory science applied to human services regulatory administration for regulatory scientists, licensing researchers, regulatory administrators and their policy and program staffs.

Licensing Measurement Fiene Download

Licensing Measurement and Monitoring Systems eHandBook and PPT Slid...

Wednesday, February 22, 2023

Here are the eHandBook and the Powerpoint Slide Deck for ***Licensing Measurement and Monitoring Systems*** that can be used by licensing administrators, regulatory scientists, licensing researchers, and licensing program staff. These contain the latest research updates. For those interested, please check back because I will be updating both documents, obviously these are a work in progress as we learn more about licensing measurement.

LMS PPT1b Fiene Download LMS ehandbook1 Fiene Download

New TRLECE Report on Monitoring Practices Used in Child Care and Ea...

Friday, February 24, 2023

Here is a new report on monitoring practices used in child care and early education licensing published by OPRE's TRLECE: The Role of Licensing in Early Care and Education Project. This is a wonderful new resource which will help to inform how states are utilizing monitoring to ensure that programs are meeting their state's respective rules and regulations. This is a highly recommended read for anyone in the ECE field as well as parents and advocates.

trlece_licensing_monitoring_practices_dec2022 Download

Licensing Measurement and Monitoring Systems eHandBook available on...

Saturday, March 04, 2023

Here is a link to the ***Licensing Measurement and Monitoring Systems eHandBook*** online for easy access via a digital publishing site.

LMSehandbook156 Fiene 2nd Ed Download

Ten Principles of Regulatory Compliance Measurement

Friday, March 10, 2023

A short paper is posted proposing ten principles to consider when dealing with regulatory compliance measurement within the regulatory science field. It is based upon 50 years of research diving deep into regulatory compliance data at the state, national, and international levels. These principles are based upon repeated demonstrations in studies conducted across the above three venues.

Ten Principles of RCM2 Download

The Public Policy Implications of the Regulatory Compliance Theory ...

Friday, March 17, 2023

A technical research note/abstract combining research from several regulatory compliance metrics over the past decade into one abstract emphasizing the public policy implications of this research.

From the introduction to the abstract “This technical research note/abstract provides a data matrix depicting the relationship between regulatory compliance and program quality. The data clearly demonstrate the regulatory compliance theory of diminishing returns which depicts the ceiling or plateau effect in this relationship between regulatory compliance data and program quality data. It also shows the difficulty one will have in distinguishing program quality differences at the full and high regulatory compliance levels but the ease in distinguishing program quality between low regulatory compliance and high regulatory compliance levels.”

“The importance of these studies and the summary matrix is to provide a context in how licensing and regulatory compliance data should be used in making public policy decisions, for example: is it more effective and efficient to require high or substantial regulatory compliance than full regulatory compliance with all rules and regulations to be granted a full license to operate? It appears prudent to continue with the US emphasis on QRIS as an add on quality initiative, especially in states where rules/regulations are at a minimal level. In Canada their emphasis has been more in line with an integrative monitoring approach in which quality elements are built in or infused within the rules and regulations themselves. This approach appears to work in a similar fashion and is an effective public policy initiative. Either approach appears to be an effective modality to increasing program quality; but are both equally efficient.”

FRCS TRC PQ Matrix1

Regulatory Compliance Matrix

Saturday, March 25, 2023

Displayed in the attached document is a comparison of regulatory compliance metric principles, prevailing paradigms and a continuum of quality matrix. These principles and key elements have been presented in previous posts but here they are presented side by side depicting where there are common treads. For the interested reader who wants additional information about any of the principles or elements, please consult the previous RIKINotes Posts for additional details.

Regulatory Compliance Matrix Download

Update on Saskatchewan Differential Monitoring and Quality Indicato...

Saturday, April 15, 2023

In several posts on this site, I have provided updates related to the comprehensive project and research study occurring in the Province of Saskatchwan's Ministry of Education child care programs involving their development and implementation of a differential monitoring approach to licensing and regulatory compliance.

As reported previously, they have gone through several developmental stages over the past several years in developing their licensing key indicators and risk assessment rules. These systems have been validated (please see the National Association for Regulatory Administration (NARA) website: ***NARA Key Indicators***) for the final report on these validation studies.

The last component in the development of the Saskatchewan Differential Monitoring approach was to develop and implement quality indicators. Saskatchewan is the first jurisdiction to employ all components to a differential monitoring approach. This part of the project is nearing its conclusion as 85% of the data to validate this portion of the approach is completed. It is projected that by the end of the month all data will be collected and analyzed by that point. A final report will be generated at that point and posted to the NARA website along with the other validation study reports.

Just as a sneak preview, it appears that the program quality indicators scale (Saskatchewan Early Childhood Program Quality Indicators) developed and tested in this study will be validated when compared to environmental rating scales (ECERS & ITERS) and regulatory compliance data (RCS: Regulatory Compliance Scale). This will only help to add to the tools that are available to licensing agencies as they monitor early care and education programs throughout Canada and the United States as well as beyond. The new program quality indicator scale will have broad applicability and be based upon a solid empirical base.

Attached below is the codebook being used for the analyses and to generate the output for the validation study and a draft of the final report format for this very important study.

4Codebook+Output Download 1SK ECQKI Report18c4 Download

NARA Webinar on Big Data

Wednesday, April 19, 2023

Here is a new **NARA: National Association for Regulatory Administration** Webinar coming up next month that people may be interested in: *How Regulatory Agencies are Using Big Data to Predict Non-Compliance.*

CLEAR Webinars coming up this Spring 2023

Saturday, May 06, 2023

Here are two CLEAR: Council on Licensing, Enforcement and Regulation Webinars coming up this month and next that may be of interest related to regulatory compliance and big data.

CLEAR Webinars Download

Five Studies Providing Evidence for the Regulatory Compliance Dimin...

Sunday, May 07, 2023

The following attachment contains five studies providing the empirical evidence supporting the regulatory compliance diminishing returns effect or ceiling effect that is the cornerstone of the theory of regulatory compliance as proposed by Fiene (2016, 2019). The studies were completed between 2013 – 2023.

TRC 5 Studies
Download

Saskatchewan Study Confirms Program Quality Indicators

Wednesday, May 10, 2023

The downloadable file below contains the final report of the Saskatchewan Early Childhood Program Quality Indicators Validation Study. The report contains the results from the validation study and analyses as well as the Program Quality Indicators Scale. It is the final piece in assembling/validating the differential monitoring approach in Saskatchewan's Ministry of Education Child Care Programs.

This is a very significant study because of the following: It was a large comprehensive validation study involving 30 programs, 90 classrooms and 180 observations of infant, toddler, and preschool classrooms utilizing the Early Childhood Environmental Rating Scale (ECERS)/Infant Toddlers Environmental Rating Scale (ITERS) and the Saskatchewan Early Childhood Program Quality Indicators (SKECPQI) instruments. Six trained observers collected the data over a two-month period.

The analyses clearly demonstrated that the new SKECPQI instrument is a valid and reliable measure of program quality. Program Quality Indicator Number 2 (PQI #2) clearly showed its predictive power in this study. The SKECPQI and PQI #2 correlated very highly with the ITERS and ECERS. The SKECPQI appears to correlate more highly with regulatory compliance violations than the ECERS or ITERS. The ceiling/plateauing effect is not as evident with the SKECPQI as it is with ECERS/ITERS.

The Regulatory Compliance Scale (RCS) is a better sorter for regulatory compliance than the violation data. There is a good deal of internal consistency within the SKECPQI Tool just as it is with the ERSs.

The Regulatory Compliance Theory of Diminishing Returns was validated in comparing RCS with ECERS/ITERS. Both the SKECPQI Scale and the Regulatory Compliance Scale are introduced as new improvements to measuring quality and regulatory compliance.

This report should have great national and international interest generated because of the above results and the new scales being proposed. Both scales are generated from empirical evidence and expert opinion.

SKPQI Download

Saskatchewan Quality Indicators Study

Wednesday, May 10, 2023

Attached is the Saskatchewan Quality Indicators Study (***The Saskatchewan Early Care and Education Quality Indicators Tool and Validation***) which validates the new program quality tool developed in this Canadian province.

An excerpt taken from the Report's Abstract:

This validation study involved 30 programs, 90 classrooms and 180 observations of infant, toddler, and
preschool classrooms utilizing the ECERS/ITERS and the SKECPQI instruments. Six trained observers
collected the data over a two-month period. The analyses clearly demonstrated that the new SKECPQI
instrument is a valid and reliable measure of program quality. PQI #2 clearly showed it predictive power
in this study. The SKECPQI and PQI #2 correlated very highly with the ITERS and ECERS. The SKECPQI appears to correlate more highly with regulatory compliance violations than the ECERS or ITERS. The ceiling/plateauing effect is not as evident with the SKECPQI as it is with ECERS/ITERS. The Regulatory Compliance Scale (RCS) is a better sorter for regulatory compliance than the violation data. There is a good deal of

internal consistency within the SKECPQI Tool just as it is with the ERSs. The Regulatory Compliance Theory of Diminishing Returns was validated in comparing RCS with ECERS/ITERS. Both the SKECPQI Scale and the Regulatory Compliance Scale are introduced as new improvements to measuring quality and regulatory compliance.

NARA Saskatchewan ECPQI Download

Ceiling Effect/Diminishing Returns, Regulatory Compliance and Progr...

Sunday, May 14, 2023

A relatively short technical research note on the results from a study supporting the use of the Regulatory Compliance Scale and the Program Quality Indicator Scale and the fifth validation study supporting the Ceiling Effect/Diminishing Returns related to the theory of regulatory compliance.

CE – RCS – PQI Download

New Licensing Measurement/Regulatory Compliance Tools for Licensing...

Wednesday, May 17, 2023

In a previous blog post, I presented the ceiling effect/diminishing effect, the regulatory compliance scale, and the program quality indicators scale. In that post, I said I would be doing additional data mining of the very rich database that was created in Canada and used to generate these new tools: the regulatory compliance scale and the program quality indicators scale. Here are some of my insights in having done this deeper dive into the database.

The ceiling effect/diminishing effect was present when the regulatory compliance scores were compared to the environmental rating scale scores with the typical plateauing in the quality scores as one moves from substantial to full 100% regulatory compliance. However, the plateauing was not present when comparing the program quality indicators scale scores and the regulatory compliance scores. There was more of a linear relationship between the two. Why could that be the case? In reviewing the content of the program quality indicators scale there appears to be more of a balance in how quality is determined. Remember, the program quality indicators scale is the result of previous key indicator research involving licensing, accreditation, professional development, quality rating and improvement systems. It may provide a more balanced approach for licensing administrators in attempting to address the infusion of program quality into their licensing system. And, in fact, I would go so far to say that the program quality indicators scale could be used as a screener tool for measuring program quality across the board. This is something that I have refrained from doing in the past, but given the new scale, I think this is a potential use of the new program quality indicators scale.

I could also see the use of the program quality indicators scale as a public policy enhancement by using it in conjunction with ***Caring for Our Children Basics*** which I have proposed all licensing administrators use as their baseline for regulatory development and implementation. Using the two in tandem would be a win-win in that it would be the

ultimate manifestation of the use of the key indicator methodology in addressing both basic health and safety as well as program quality together in a differential monitoring approach. This would provide a very cost effective and efficient monitoring system.

Another insight from my deep dive into the database is that using violations frequency data is not a useful metric in licensing measurement. The frequency data needs to be put into more logical categories or buckets, such as full, substantial, mediocre, and low regulatory compliance which is more consistent with licensing research. The frequency data measured at a nominal level just doesn't work because the data are so discrete and not continuous. There is a total random relationship between regulatory compliance and program quality when it is used. Put these violation frequency data into the regulatory compliance scale and it works really well in distinguishing amongst the various levels of program quality. See my previous blog posts on introducing the regulatory compliance scale and how it can be used.

I plan on continuing my deep dive into the database and see what other insights I can glean from the data. For now, I wanted to share these initial insights because I think they can be put to immediate use. Both the regulatory compliance scale and the program quality indicators scale are available for use by licensing administrators and regulatory scientists. Both are contained within previous posts on this blog. I encourage you to try them out, I was really surprised by how robust and useful they were. They really do make a difference in the analyses.

Regulatory Compliance, Ceiling Effect/Diminishing Returns, Regulato...

Wednesday, May 17, 2023

Attached is a listing of the various databases available via Mendeley Data for interested licensing researchers and regulatory scientists. The databases will provide the raw data demonstrating the relationships between regulatory compliance and program quality and have many quality initiative databases. They are available for viewing and downloading and contain the proper citations. If any scientist has a question about the databases, please don't hesitate to contact Dr Fiene at the Research Institute for Key Indicators/Penn State University: rfiene@rikinstitute.com.

Database Citations Download

As a Licensing Administrator, all the Questions You Wanted to Ask a...

Thursday, May 18, 2023

The first answer is probably the most controversial but at the same time the most important from a public policy point of view, the Ceiling Effect, the Regulatory Compliance Theory of Diminishing Returns. Without a doubt this is probably the one result of all the research into regulatory compliance that has resulted in the most sleepless nights for researchers and administrators. But it is the kernel of everything related to regulatory compliance and so many suggested changes that occurred after its discovery and publication. When it was first proposed back in the 1970's and 1980's, it was looked upon as heresy because it went against all regulatory thinking at that point. Of course, there

was a linear relationship between regulatory compliance and program quality; but the empirical data was not supporting this predominant paradigm. The data clearly demonstrated that full 100% regulatory compliance did not guarantee that these same programs were the highest quality.

Wow, that was a revelation. It was always assumed that as regulatory compliance increased, program quality would increase in the same proportion. Very honestly, that was the hypothesis back in the 1970's and it would have been so much more simple if that were the case. Of what is to follow would never have occurred because there would not have been support for it. But it did not work out that way. The data back then and the data to this day clearly indicates that regulatory compliance has limitations when it comes to identifying program quality. Licensing via regulatory compliance will ensure health and safety but it will not guarantee quality of programming. This is an important distinction and one that is pertinent to all industries impacted by regulatory science and not just the human services.

So what are some of the key questions and their respective answers based upon this paradigm shifting discovery related to a ceiling effect with regulatory compliance data? The first that will jump out at you has to do with "one size fits all vs a more targeted or differential approach". If there was a linear relationship between regulatory compliance and program quality, one size fits all would work just fine. But when there is a ceiling effect present, it lends itself to a more targeted or differential approach in which the pursuit of specific rules/regulations/standards have a differential impact on the overall program is warranted. Clearly it opens the door to risk assessment analysis and predictor analysis via key indicators. Both these approaches would not be necessary if all rules were created equal and administered equally; but they are not. So, as a licensing administrator, you need to take that into account and weight rules and look for rules that statistically predict overall regulatory compliance.

Another major issue with regulatory compliance which adds to the difficulty of making licensing decisions and how best to enforce rules is the fact that the regulatory compliance data distribution is so skewed that it is very difficult to distinguish between the high performers and the mediocre performers. The data are not normally distributed as is the case with more program quality metrics. With regulatory compliance metrics (RegalCMetrics), it doesn't work that way and one will have difficulty in sharing with the general public who the best performers are. Plus, the data are all nominally measured, in other words, either a program is in compliance or out of compliance with each rule. Guess what, from a statistical point of view, not much you can do with that. Regulatory compliance violation data are not very useful. However, there is a work around for it call the Regulatory Compliance Scale which places the regulatory compliance violation data into categories or buckets that are more logical from a licensing point of view (this idea is addressed in several previous blog posts).

So where does that leave us. From a public policy point of view, licensing administrators have a big decision to make regarding the issue of full versus partial regulatory compliance in order to obtain a regular license. Based upon the empirical evidence, it would appear that being in substantial but not full regulatory compliance would be sufficient to being granted a regular license. But that is a major public policy change.

The paradigm shifts from one of being continuous to one that is more discrete and dichotomous in the following ways: "do things well versus do no harm" and "strength based versus a deficit based model". Both are important but they do change how you

approach your monitoring of programs. Obviously the above quotes fit the “program quality versus the regulatory compliance” dichotomy as mentioned earlier which is at the heart of what we are trying to accomplish. One should build upon the other and be continuous. It should be a linear relationship but the ceiling effect prevents this from happening and it is more non-linear. And we are searching for that sweet spot of the right combination of risk aversion and statistical predictors of regulatory compliance.

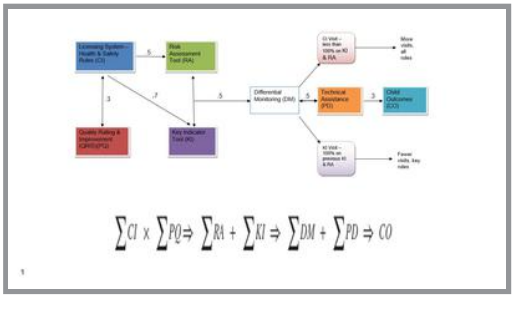
This is what led to the Quality Rating and Improvement Systems (QRIS) movement and the proliferation of these systems because of the frustration that licensing systems just were not doing the job of balancing health and safety with program quality. And it was a good move, states did not have the appetite to take that on within their licensing systems; so a new approach had to be created. But now we need to think in a more integrative monitoring frame of reference to combine these two systems into one more effective and efficient approach, such as an Early Childhood Program Quality Improvement and Indicator Systems Model (ECPQI2M), which balances risk assessment (risk predictor rules) with program performance (quality indicators). I will address the ECPQI2M in an upcoming blog post in greater detail and demonstrate how it fits within the various program monitoring approaches.

We need to have the ability to more clearly distinguish the top performers from the mediocre performers as we can distinguish the top performers from the non-optimal performers. We need to balance our gatekeeper role to one more of an enabler. To balance risk and performance; structural and process quality.

These are really tough questions and many of the answers are difficult to digest but based upon the past 50 years of regulatory compliance/licensing measurement and research we are gradually finding our way. A paradigm shift is occurring whereas a field we are moving from an absolute/one size fits all to more of a relative/differential approach.

The Early Childhood Program Quality Improvement and Indicator Syste...

Friday, May 19, 2023



The above graphic displays the Early Childhood Program Quality Improvement and Indicator Systems Model (ECPQI2M) that has been described in a previous blog post. In this blog post, there is the need to cross-reference the model with the various monitoring approaches that have been used in the human services over the past 50 years in order to demonstrate how this model can tie the various approaches into a unified system as suggested in the previous post (also see the ***Licensing Measurement and Monitoring***

Systems eHandBook that is available on this blog as well as on the RIKI Introductory/Main Webpage).

Program monitoring has gone through many variations as has the ECPQI2M. Program monitoring has had an anecdotal phase, instrument-based phase, coordinated phase, differential/inferential phase, and integrative phases. The ECPQI2M has also gone through five phases/editions as well mirroring the program monitoring developmental stages.

In the above model, the anecdotal phase is depicted essentially by the first two blocks to the left: Licensing Systems and QRIS blocks. These were independent of each other during the anecdotal phase because these systems came online at different points in time. Licensing was first with QRIS coming on later in time to build upon and expand the quality component of licensing. The other problem with the anecdotal phase was the emphasis on case notes within licensing for doing inspections and reviews and the inability of using these data to communicate with any other system in a large scale way.

The instrument-based program monitoring phase basically started to replace the anecdotal phase beginning in the 1970's with the introduction of checklists and tools to gather more and more data from programs that were increasing in number and size. There was a tremendous expansion taking place in the human services, especially in early care and education programs, that necessitated a new program monitoring system to track all these new programs. Once this system change occurred, it was possible to make the systems more efficient and effective based upon the new level of quantitative data measurement and analysis. This ushered in the inferential/differential monitoring phase. This is depicted in the above graphic in the same two boxes to the left but now they have the ability to communicate with each other.

The inferential/differential monitoring phase was a change made possible because of the regulatory compliance theory of diminishing returns/ceiling effect which was reported in the licensing research literature in the late 1970's, early 1980's. With this theory, it became possible to approach regulatory compliance in a new and innovative way that relied on risk assessment and key indicator methodologies and introduced the idea of abbreviated reviews or inspections. This is depicted in the above graphic in the middle three boxes: Risk Assessment, Key Indicators, and Differential Monitoring. It was a major paradigm shift for the human services field and was mostly felt in the early care and education domain. Two publications of standards by ACF/HHS ***Stepping Stones to Caring for Our Children*** and ***Caring for Our Children Basics*** came out of this phase which relied upon risk assessment and key indicators respectively for their development.

The next phase of program monitoring started in the 2000's, the coordinated monitoring phase came into being because of the proliferation of early care and education programs in many areas: Head Start, child care, preschool, public and private center based and home based care (this phase of monitoring was heavily encouraged by ACF and OPRE). Based upon this growth and the differing standards, rules, and regulations, there was a need to coordinate monitoring reviews across the governmental/funding silos and domains in order to be more effective and efficient. In the above graphic, again the first two boxes are pertinent but now think about reviewing all the various standards, rules, and regulations in a coordinated fashion rather than separately when viewing these two blocks.

The last phase to be addressed in the above model is to take the full model into focus

and to really begin to think in terms of an integrative monitoring approach (see the Freer & Fiene, 2023 blog post earlier this year related to their ***Journal of Regulatory Science*** article on this topic) which combines regulatory compliance and program quality into one effective and efficient program monitoring system. In this phase, the silos come down totally and all systems are talking with each other from licensing to QRIS to accreditation to professional development/technical assistance. Data are freely shared from one system to another and scoring takes into account health and safety but program quality as well. There is the development and implementation of program quality indicators as well as licensing indicators and risk assessment rules. When this is done, the beneficiary is in child outcomes in which true developmentally appropriate individualized targeted education and care can be provided for each child in a family friendly delivery system; assessments are tied to curriculum; encouraging communication and reasoning skills in children; and caregivers who are warm and attentive to children.

Early Care and Education Program Quality Indicators Database

Thursday, May 25, 2023

Several regulatory scientists asked if I could post the database outputs that were used to generate the ECE Program Quality Indicators. Please find the database output below as an SPSS data output file. It is rather long (150 pages of printouts) but it contains all the key parameters related to generating the reliability and validity of the scale as well as the descriptive outputs for the PQI scale. The PQI scale clearly demonstrated its robustness when compared to the Environmental Rating Scales. It is a solid addition to the ECE research literature. It is a first of its kind in that it is totally generated from an existing statistical methodology used to present key indicators from licensing, QRIS, professional development, technical assistance, training, and accreditation. It is based both upon empirical evidence as well as expert review.

PQI Output3x2a Download

The Emergence of a New Early Childhood Program Quality Scale

Wednesday, May 31, 2023

Attached below please find a new Early Childhood Program Quality Scale: ***ECEPQI – Early Childhood Education Program Quality Indicators.***

ECEQISM (1) Download

Licensing Measurement and Monitoring Systems: A Generic View of Reg...

Wednesday, May 31, 2023

The attached paper provides a more generic view of licensing measurement and monitoring systems moving from a more restricted early care and education lens to a much broader lens to assess regulatory science's influence on human services regulatory administration. This paper builds off of the ***ehandbook*** of the same title that is used as the text for the ***NARA Licensing Curriculum course: Licensing Measurement and Systems.***

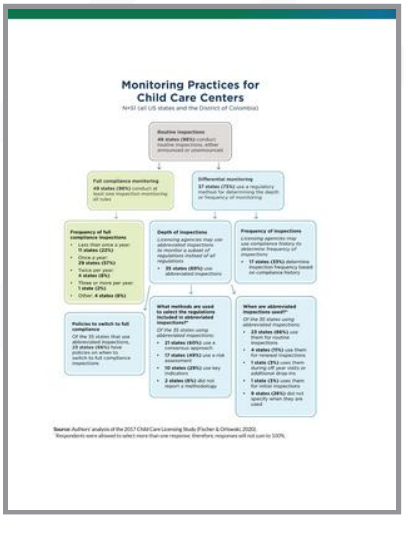
LMS Paper Download

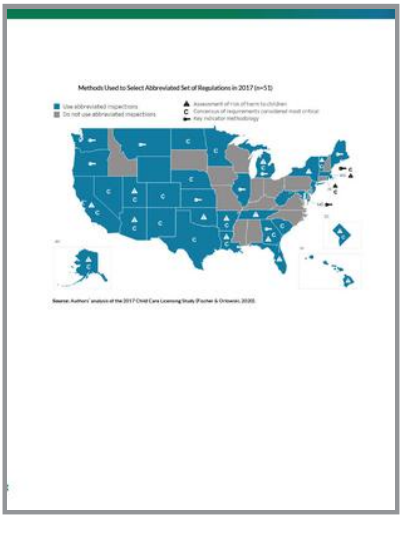
Licensing Monitoring Practices in the United States

Friday, June 02, 2023

Here are two graphics taken from the ***TRLECE Monitoring Practices Used in Child Care and Early Childhood Licensing*** publication. I have posted the full report in an earlier blog post (February 24, 2023) for those who would be interested in reading the full report.

This first image provides a flow chart for depicting how monitoring practices are being conducted in the US as of 2020. The second image provides a map depicting how individual states are using abbreviated inspections/differential monitoring approaches, such as risk assessment, key indicators, and consensus building.





NARA Selected Readings on Licensing Measurement and Monitoring Systems

Saturday, June 03, 2023

Below is an anthology of NARA selected readings on licensing measurement and monitoring systems that should be read along side the ***eHandBook Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration**** which was posted to the RIKINotes blog earlier this year and also appears on the RIKI Home Page.

- *This eHandBook is the text for the NARA Licensing Curriculum Licensing Measurement course.

NARA Selected Readings LMS Fiene 2023 Download

Risk Assessment and Key Performance Indicator Continuum

Monday, June 05, 2023

I want to continue the discussion related to the relationship between risk assessment and key performance indicators. I have posted about this relationship and other assorted concepts and ideas related to it in several previous blog posts I posted earlier this year. In this post I would like to see if I can tie some of these ideas and concepts together and show how risk and performance are more closely related and how to take advantage of this relationship.

These ideas percolated from a conversation and discussions I have been having with a colleague about a webinar we will be doing together where he suggested the use of a graphic to help to explain the essence of key performance indicators. His graphic was to be an airplane cockpit and all the gauges present on the dashboard that a pilot is looking at. A great deal of data and information to process but s/he focused on about 5-6 gauges that were the most important in flying the plane and really told the pilot if things were ok or not and when s/he needed to check the other gauges because these key performance indicator and risk assessment gauges were telling s/he something was not quite right. I would guess that two of these gauges were the altimeter and speed gauges which I would include as risk assessment gauges and a third gauge would have been the fuel gauge which I would include as a key performance indicator.

Why did I break these gauges down into the two major areas of risk assessment and key performance? Here is my thinking: the altimeter tells the pilot how close to the ground and a potential crash and the speed helps to prevent a stall of the aircraft. Both are high risk factors and things we would want to mitigate. The fuel tank is important to know how much fuel the pilot has left; in, and of itself, not necessarily a risk factor unless it becomes too low but will impact performance because it determines how far the pilot can fly the plane.

A similar scenario could be played out with driving a car. Speed is the risk factor as it increases, while the gas tank gauge is the key performance indicator determining how far we can go and how much we are getting per gallon of gas which is an indicator on many newer models.

Let's try this out in a totally different industry and scenario, such as the pharmaceutical/drug industry. When finding out if a new drug will work or not, there is a delicate balance of risk-benefit or risk-performance. Same concept, just different terminology being used. For risk assessment, either not taking the drug or taking too much of the drug will not be in the best interest of the patient. Too little or not at all the patient dies because the disease progresses. If the patient takes too much of the drug, given the side effects, the patient dies. The key performance indicator or benefit is finding the right target dosage of the drug which effectively keeps the patient alive and gets better or at least not any worse.

Another example, one that I share somewhat reluctantly because some people may take offense but I think it is an effective example, the Ten Commandments. I actually have posted this earlier in a blog post as an example if one is interested in looking at this in more detail (May 2022). With the Ten Commandments, think of "Thou Shalt not Kill" as a risk assessment rule and "Thou Shall not Steal" as a key performance indicator. Obviously the consequences of the first are much greater than the second where one is literally stealing someone's life, which is the underlying structure of the relationship between risk assessment and key performance indicators.

So let's delve into this relationship of performance and risk mitigation based upon the above examples and see how they are all tied together. Risk mitigation (Do No Harm) is sort of the book ends of the relationship, too much or too little is not a good thing, while key performance (Do Good) is somewhere in between balancing effectiveness with efficiency and finding the right balance of rules and recommended standards (The essence of the Theory of Regulatory Compliance). Remember I am addressing regulatory compliance data and not social science data in general although it would be interesting to see how this relationship of performance and risk assessment plays out in the larger context of the social sciences. I have a funny feeling that many relationships of social science variables are more nonlinear than linear in nature.

How are risk assessment and key performance indicators determined? Risk assessment rules are generally determined by expert opinion and group consensus either using or not using a Likert type Scale (***Stepping Stones to Caring for Our Children*** and ***Caring for Our Children Basics*** are examples). Key performance indicators are determined from actual data, generally regulatory compliance history utilizing a regulatory compliance statistical methodology that results in the rule's predictive ability (the statistical methodology is highlighted on this website in the publications section as well as on the **National Association for Regulatory Administration's (NARA) website** https://www.naralicensing.org/key-indicators)(***ASPE's Thirteen Quality Indicators*** and the ***Early Childhood Program Quality Indicators Scale*** are examples (see previous blog posts on all these)). From a licensing measurement perspective, risk assessment rules are generally always in regulatory compliance because the rules place clients at such great risk; while key performance indicators do not place clients at high risk as with risk assessment rules, generally have some non-compliance, just enough to distinguish between the high performers and the mediocre performers.

This relationship is made possible because of the regulatory compliance theory of diminishing returns/the ceiling effect between regulatory compliance and program quality where we are really forced to look for a paradigm shift when it comes to licensing and program monitoring. The "One Size Fits All" a very absolute approach needs to be replaced with a more relative approach, such as "Differential Monitoring" and once this paradigm shift is made it naturally leads us to identifying risk assessment rules and key

performance indicator rules. It really changes our frame of reference in establishing a proper balance between regulatory compliance and program quality standards.

To summarize, too few or too many rules are not a good outcome, it is finding the proper balance of the "right rules", finding that balance between effectiveness and efficiency, between risk mitigation and optimun performance. Let me leave you with this statement as an algorithm where TRC = Theory of Regulatory Compliance; RA = Risk Assessment; KI = Key Performance Indicator; RC = Regulatory Compliance; and PQ = Program Quality:

TRC = RA + KI=> RC + PQ

Balancing "Doing No Harm" with "Doing...

Wednesday, June 07, 2023

In my previous RIKINotes Blog Post, I talked about the risk assessment and key performance indicator continuum at a theoretical, research, and licensing/regulatory compliance measurement level. In this post, I want to present that continuum but at a more practical level demonstrating how the continuum can be played out via a monitoring approach utilizing two assessment tools: ***Caring for Our Children Basics: CFOCB*** (risk assessment) and ***Child Care Quality Indicator Scale: CCQIS*** (key performance indicators).

These tools are attached here: ***CFOCB*** and its accompanying checklist, and the ***CCQIS.***

ACF CFOCB Download ACF CFOCB Tool Download CCQIS for Parents Download

CLEAR: Council on Licensure, Enforcement and Regulation –...

Wednesday, June 07, 2023

Here is the slide deck for the CLEAR: Council on Licensure, Enforcement and Regulation – How regulatory agencies are using Big Data to predict non-compliance webinar that Mark Parker and I will be doing today.

CLEAR Webinar 2023 – Big Data Download

National Center on Early Childhood Quality Assurance (NCECQA) Summe...

Friday, June 09, 2023

The National Center on Early Childhood Quality Assurance (NCECQA) is pleased to invite you and your staff to join the following two opportunities for the remainder of the 2023 year.

These sessions are intended for licensing and license-exempt administrators, staff and applicable partners that would benefit from these opportunities to learn, hear from, and

share information with peers on topics facing the licensing field.

Please see information below for dates, times, topics, and registration links. Each session is 90 minutes, and we encourage you to register now to get these events on your calendar.

Once you register, you will receive a confirmation email. Be sure to save the invitation to your calendar. It is also best to join these meetings from your laptop versus phone.

A reminder email will be sent prior to each session to each *registered* participant.

We encourage you to pass this information along to anyone in your agency and other partners that you believe would benefit from the community of practice and the professional development session.

Licensing Community of Practice:

August 29, 2023

1:00 – 2:30 pm ET

Topic: The Role of Licensing in Early Care and Education

Registration: https://www.zoomgov.com/meeting/register/vJItf-uqrT4pHz0NXtvWfnLJmtOkG69LKU4

The LCOP session will include content on The Role of Licensing In Early Care and Education. Dr. Kelly Maxwell, Senior Research Scientist, from Child Trends, will be a special guest presenter. There will be opportunities to hear from your peers in small group conversations following the presentation.

Professional Development Session:

September 7, 2023

1:00 – 2:30 pm ET

Topic: Human Care Regulation theories of Monitoring and Innovations in Licensing

Registration: https://www.zoomgov.com/meeting/register/vJItdOutpzMjGcqK-oVDlp2hC0QYF3zaJME

Dr. Richard Fiene, from the RIKI Institute, will present on theories of monitoring in the human care regulation field. The State of Tennessee will present on innovative approaches to monitoring blending licensing and QRIS. A certificate of attendance will be given to participants who attended the meeting. This session does not include small group discussions.

Please register now for these events to get them on your calendar.

National Center on Early Childhood Quality Assurance, ICF
1902 Reston Metro Plaza, Reston, VA 20190, USA

Phone: 877-296-2250
Email: QualityAssuranceCenter@ecetta.infoWebsite: http://childcareta.acf.hhs.gov

The Saskatchewan Reports and Respective Data Bases

Monday, June 12, 2023

Listed below are the Saskatchewan Reports for differential monitoring, risk assessment, and licensing & quality indicators. Also listed are the codebooks for each of the reports generated so that regulatory scientists and licensing researchers can see the structure of the data bases for licensing key indicators (KIM), risk assessment rules (RAM), validation studies of licensing key indicators and risk assessment rules (VAL), and quality indicators validation study (PQI).

-SK Reports Download KIM Codebook Download RAM Codebook Download VAL Codebook Download PQI Codebook Download

Revisiting the Risk Assessment and the Key Indicator Matrices

Monday, June 12, 2023

There are two other blog posts on the risk assessment (RAM) and key indicator (KIM) matrices posted last year and the year before demonstrating differences and similarities. In this post, there is an attempt to build upon the previous posts and to enhance some of these differences and similarities. Let's start with a narrative description followed by a chart/matrix comparison.

Risk Assessment (RAM) is generally depicted as a 3 x 3 matrix (pictured below) with risk on one axis and prevalence on the other axis; while Key Indicators (KIM) is generally depicted as a 2 x 2 matrix in which one axis measures individual rule compliance and the other axis measures overall regulatory compliance or compliance history. RAM deals with individual rules with a weight while KIM deals with aggregate rules and high and low regulatory compliance. RAM rules are heavily weighted while KIM rules are medium weighted. RAM is hardly ever out of compliance while KIM has a good deal of non compliance to distinguish the high compliant group from the low compliant group. RAM uses likert scale and means; KIM uses correlational analyses and prediction. RAM is expert opinion while KIM is data driven.

RAM/ **KIM** Matrix: *Risk Assessment* and **Key Indicators**

High Risk/High Prevalence High Risk/Med Prevalence *High Risk/Low Prevalence* Med Risk/High Prevalence **Med Risk/Med Prevalence** Med Risk/Low Prevalence Low Risk/High Prevalence Low Risk/Med Prevalence Low Risk/Low Prevalence 3×3 Matrix Demonstrating Relationships between **KIM** and *RAM*

In the above 3 x 3 Matrix: Risk x Prevalence are listed across the axis, in which *RAM* is preventing high risk, high prevalence but in reality *RAM rules* are very low prevalence, low non-compliance. **KIM rules** are usually med risk and prevalence.

The above matrix and narrative provides additional enhancements to the differences and similarities between risk assessment and key indicator rules. As one can see, there are some basic differences but at the same time there is a deep common structure that underlies both. These are important attributes to consider before using these statistical methodologies as part of a differential monitoring approach. But the bottom line when using either RAM or KIM, or RAM+KIM, all RAM and KIM rules must be in compliance at all times. Remember it is not about more or less rules in total, it is about compliance with the right rules.

Let's take this to the next step and think about this more broadly and relate it to the larger research literature dealing with businesses. Risk assessment and key performance indicators (KPIs) are two important concepts in business management. Risk assessment is the process of identifying, evaluating, and managing risks to an organization's objectives. KPIs are metrics that measure an organization's performance against its objectives.

The two concepts are related in that risk assessment can help organizations identify and prioritize risks that could impact their KPIs. For example, if an organization's KPI is to increase sales by 10%, then risk assessment can help the organization identify risks that could prevent it from achieving this goal, such as a competitor launching a new product or a change in customer behavior.

Once risks have been identified, organizations can develop mitigation strategies to reduce the likelihood or impact of those risks. KPIs can be used to track the effectiveness of these mitigation strategies. For example, if an organization is concerned about a competitor launching a new product, it could track its sales data to see if there has been a decrease in sales since the competitor launched its product.

By integrating risk assessment and KPIs, organizations can improve their ability to identify, manage, and mitigate risks to their objectives. This can help organizations achieve their goals and objectives more effectively.

Here are some examples of how risk assessment and KPIs can be used together:

- A bank might use risk assessment to identify the risks of fraud and theft. The bank could then use KPIs to track the number of fraudulent transactions and the amount of money lost to fraud. This information could be used to develop mitigation strategies, such as implementing new security measures or training employees on how to spot and prevent fraud.
- A manufacturing company might use risk assessment to identify the risks of product recalls and safety incidents. The company could then use KPIs to track the number of product recalls and the number of safety incidents. This information could be used to develop mitigation strategies, such as improving product quality or implementing new safety procedures.
- A retail company might use risk assessment to identify the risks of natural disasters and supply chain disruptions. The company could then use KPIs to track the number of natural disasters that occur in its region and the number of supply chain disruptions that occur. This information could be used to develop mitigation strategies, such as developing contingency plans or building up inventory.

By integrating risk assessment and KPIs, organizations can improve their ability to identify, manage, and mitigate risks to their objectives. This can help organizations achieve their goals and objectives more effectively.

Risk Assessment Matrix Weighting of Regulatory Compliance Scores

Tuesday, June 13, 2023

According to the latest Child Care Licensing Study a large number of states utilize a risk assessment strategy in their differential monitoring approach. A side benefit of having developed a risk assessment and weighting of all the rules in a respective set of regulations is using those weights to determine regulatory compliance history scores for each program. Generally regulatory compliance history scores are determined by adding the violations for a particular inspection. When these violations are added up they all have the same weight, a weight of “1”. However, rather than adding the violations up this way, if the weights were taken into account for each violation and then applied to the score, it would increase the variability in the data dramatically.

In previous posts, it has been documented that licensing/regulatory compliance data lack a good deal of variability in their respective data distributions. Anyway that additional variability can be added should be undertaken from a statistical point of view. Let me illustrate my point in the following table:

Rules Non-Weighted Weighted 001 1 9 002 1 8 003 1 3 004 1 5 Total 4 25 Comparison of Weighted and Non-Weighted Rules

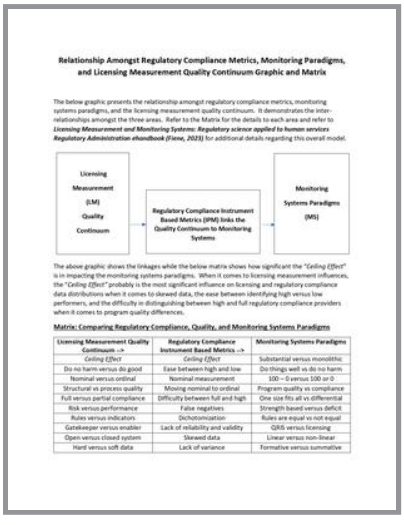
As one can see from the above table, the use of weights changes the value of each violation significantly in moving it from a value of “1” in that a violation is determined to a weighted violation that ranges from “3 – 9” based upon a likert scale of 1 = “little risk” to 10 = “great deal of risk”. For those interested in this enhancement to determining regulatory compliance history, please consult **NARA’s Licensing Curriculum and Course** entitled ***Licensing Measurement and Systems*** or contact Dr Fiene at rfiene@naralicensing.org or rfiene@rikinstitute.com.

Relationship Amongst Regulatory Compliance Instrument Based Metrics...

Friday, June 16, 2023

Below is a graphic and matrix showing the relationship amongst regulatory compliance/instrument based metrics, monitoring systems paradigms, and the licensing measurement quality continuum as both jpeg and pdf file formats.

LM-IPM-MS Graphic + Matrix (1)_page-0001 Download LM-IPM-MS Graphic + Matrix (1) Download



Relationship Amongst Regulatory Compliance Metrics, Monitoring Paradigms, and Licensing Measurement Quality Continuum Graphic and Matrix

The below graphic presents the relationship amongst regulatory compliance metrics, monitoring systems paradigms, and the licensing measurement quality continuum. It demonstrates the inter-relationships amongst the three areas. Refer to the Matrix for the details to each area and refer to ***Licensing Measurement and Monitoring Systems: Regulatory science applied to human services Regulatory Administration ehandbook (Fiene, 2023)*** for additional details regarding this overall model.

The above graphic shows the linkages while the below matrix shows how significant the *"Ceiling Effect"* is in impacting the monitoring systems paradigms. When it comes to licensing measurement influences, the *"Ceiling Effect"* probably is the most significant influence on licensing and regulatory compliance data distributions when it comes to skewed data, the ease between identifying high versus low performers, and the difficulty in distinguishing between high and full regulatory compliance providers when it comes to program quality differences.

Matrix: Comparing Regulatory Compliance, Quality, and Monitoring Systems Paradigms

Licensing Measurement Quality Continuum -->	Regulatory Compliance Instrument Based Metrics -->	Monitoring Systems Paradigms
Ceiling Effect	*Ceiling Effect*	Substantial versus monolithic
Do no harm versus do good	Ease between high and low	Do things well vs do no harm
Nominal versus ordinal	Nominal measurement	100 – 0 versus 100 or 0
Structural vs process quality	Moving nominal to ordinal	Program quality vs compliance
Full versus partial compliance	Difficulty between full and high	One size fits all vs differential
Risk versus performance	False negatives	Strength based versus deficit
Rules versus indicators	Dichotomization	Rules are equal vs not equal
Gatekeeper versus enabler	Lack of reliability and validity	QMS versus licensing
Open versus closed system	Skewed data	Linear versus non-linear
Hard versus soft data	Lack of variance	Formative versus summative

Regulatory Compliance Diminishing Returns/Ceiling Effect Papers

Saturday, June 17, 2023

The attached document contains a series of papers dealing with the regulatory compliance diminishing returns/ceiling effect as well as specific mitigation strategies, such as the regulatory compliance scale and program quality indicators. It is written for regulatory scientists from other industries outside of the human services to consider if a "Ceiling Effect" occurs in their respective industry.

The RC Ceiling Effect Papers Download

Regulatory Compliance Scale (RCS) Revisited

Saturday, June 17, 2023

The Regulatory Compliance Scale (RCS) was originally posted on this RIKINotes Blog in January of 2022 and has received many visits, reads and downloads since that time. It is one of the most popular posts on the blog, especially with researchers from the Philippines.

It is being revisited because now that it has time to be tested and retested in more recent studies its usefulness is readily apparent. Before it being proposed in 2022, there were basically two ways to document regulatory compliance historical data either by counting up the number of violations or by stating that the provide of service was either in or out of compliance. The first approach was very discrete and basically a frequency count while the second was an all or none determination. The problem with both was that they did not work very well. Either approach did not really discriminate well amongst the differences in programs. That is the reason for proposing the Regulatory Compliance Scale (RCS).

The Regulatory Compliance Scale (RCS) is based upon a sound theoretical framework that is consistent in how licensing decisions and groupings are done in regulatory administration. Programs are in full regulatory compliance (0 violations), substantial

regulatory compliance (1-3 violations), mediocre regulatory compliance (4-9 violations), or very low regulatory compliance (10+ violations). None of the violations are either risk rules or key indicator rules. This scaling fits with regulatory science and licensing research and theory. The other thing about the RCS is that it works really well in utilizing this scale instead of the all or none determination, or the frequency count approach as highlighted above. The latest study conducted in the Province of Saskatchewan clearly demonstrated its superiority over the other two approaches.

The hope is for the RCS to be further tested by regulatory scientists and licensing researchers in the human services and in other industries as well to determine if its scaling holds up in other venues. It is recommended that jurisdictions should attempt the three approaches as outlined above and see which is the most effective and efficient.

Risk Assessment and Key Indicator Matrices Decision Theory and Revi...

Sunday, June 18, 2023

Risk Assessment and Key Indicator methodologies are two approaches utilized in differential monitoring systems for generating an abbreviated inspection by only looking at a core set of rules based upon statistical predictor or risk assessment algorithms. In this post the matrices (pictured below) utilized to generate these core sets of rules are depicted and with a matrix that determines their respective validation status based upon subsequent studies.

The first matrix (KIM Matrix) deals with the Key Indicator Methodology (KIM) and demonstrates how key indicator rules are determined by measuring each potential rule and comparing it to the regulatory compliance history for the respective set of all rules for a given jurisdiction in which the programs are grouped into either a high (Full or substantial regulatory compliance with all rules) or low compliant groups (several or more violations of rules). From the matrix, it is clear that for a rule to become an indicator rule, there needs to be a very high correlation between the rule being in compliance with the high group and out of compliance with the low group. It is only when this occurs that the rule will distinguish between high and low compliance and be a predictor rule. The other two cells should occur less frequently but there will be some occurrences when these do occur and when they do, these rules will not make the threshold of becoming indicator rules. So Key Indicator Predictor Rules increase performance by predicting overall regulatory compliance.

The second matrix (RAM Matrix) deals with the Risk Assessment Methodology (RAM) and demonstrates how risk assessment rules are determined by measuring each potential rule by the amount of risk of morbidity or mortality a client is placed in because of non-compliance with the specific rule and how likely will this occur. As one can see, the cell which contains high risk rules and they are likely to occur would be included on the risk assessment tool. All the other cells are color coded in decreasing risk and likelihood categories and a jurisdiction can determine the appropriate thresholds. More risk rules would be included for a risk aversive approach while less risk rules would be included for a more lenient approach or because the number of key indicator rules are sufficient to insure the health and safety of the clients being served. So Risk Assessment Rules decrease risk to clients but are not predictive rules of overall regulatory compliance.

The last matrix (KIM/RAM Validation Matrix) is used after the KIM and RAM tools are actually used to validate that they are working as intended. KIM should be statistically predicting overall compliance with all the rules (Rules in Compliance cell), while RAM should be mitigating risk in the program by always having the high risk rules in compliance (also Rules in Compliance cell). Part of the KIM validation strategy is that the opposite should also be occurring in that when the KIM tool has indicator rules out of compliance, it should statistically predict rules out of compliance with other rules (the Rules Out of Compliance cell). Something that can occur but needs to be eliminated are the false negatives in which the KIM is in compliance but there is non-compliance detected elsewhere in the rules. When full compliance is used for the high compliant group in the KIM Matrix, this eliminates this from happening. But if substantial compliance is used as the criterion for the high compliant group, then this can become problematic. If substantial compliance is used as the threshold for the high compliant group, a multiplier needs to be applied to rule out the likelihood of false negatives (please see the blog post on this algorithm adjustment posted back in January of this year or look at the description provided below the matrices). False positives are possible also, but are not of overall concern from a safety point of view but are a concern from a psychometric standpoint and additional research needs to be done to determine the cause.

Hopefully this post helps licensing administrators, licensing researchers, and regulatory scientists to see the logic behind the differential monitoring methodologies of key indicator and risk assessment and how best to take advantage of both.

KIM Matrix

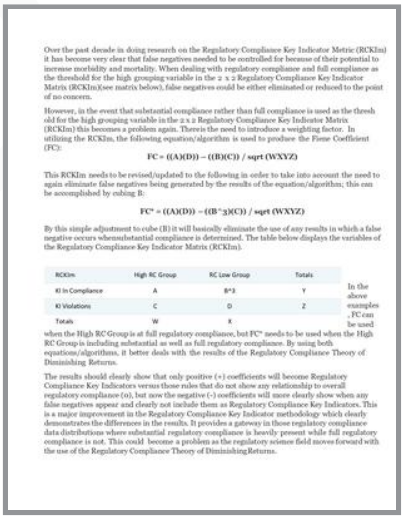
KIM Generator	High Compliant Group	Low Compliant Group
Rule In Compliance	Yes: OK	No
Rule Out of Compliance	No	Yes: OK

RAM Matrix

High Risk/High Likely	High Risk/Med Likely	High Risk/Low Likely
Med Risk/High Likely	Med Risk/Med Likely	Med Risk/Low Likely
Low Risk/High Likely	Low Risk/Med Likely	Low Risk/Low Likely

KIM/RAM Validation Matrix

KIM/RAM Validator	Rules In Compliance	Rules Out of Compliance
KIM/RAM In Compliance	Yes/Yes: OK KIM/RAM	Yes/No: False Negative
KIM/RAM Out Compliance	No/Yes: False Positive	No/No: OK KIM



Over the past decade in doing research on the Regulatory Compliance Key Indicator Metric (RCKIm) it has become very clear that false negatives needed to be controlled for because of their potential to increase morbidity and mortality. When dealing with regulatory compliance and full compliance as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIm)(see matrix below), false negatives could be either eliminated or reduced to the point of no concern.

However, in the event that substantial compliance rather than full compliance is used as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIm) this becomes a problem again. Therein the need to introduce a weighting factor. In utilizing the RCKIm, the following equation/algorithm is used to produce the Fiene Coefficient (FC):

$$FC = ((A)(D)) - ((B)(C)) / \text{sqrt}\,(WXYZ)$$

This RCKIm needs to be revised/updated to the following in order to take into account the need to again eliminate false negatives being generated by the results of the equation/algorithm; this can be accomplished by cubing B:

$$FC^* = ((A)(D)) - ((B^*3)(C)) / \text{sqrt}\,(WXYZ)$$

By this simple adjustment to cube (B) it will basically eliminate the use of any results in which a false negative occurs when substantial compliance is determined. The table below displays the variables of the Regulatory Compliance Key Indicator Matrix (RCKIm).

RCKIm	High RC Group	RC Low Group	Totals
KI In Compliance	A	B*3	Y
KI Violations	C	D	Z
Totals	W	X	

In the above examples , FC can be used when the High RC Group is at full regulatory compliance, but FC* needs to be used when the High RC Group is including substantial as well as full regulatory compliance. By using both equations/algorithms, it better deals with the results of the Regulatory Compliance Theory of Diminishing Returns.

The results should clearly show that only positive (+) coefficients will become Regulatory Compliance Key Indicators versus those rules that do not show any relationship to overall regulatory compliance (o), but now the negative (-) coefficients will more clearly show when any false negatives appear and clearly not include them as Regulatory Compliance Key Indicators. This is a major improvement in the Regulatory Compliance Key Indicator methodology which clearly demonstrates the differences in the results. It provides a gateway in those regulatory compliance data distributions where substantial regulatory compliance is heavily present while full regulatory compliance is not. This could become a problem as the regulatory science field moves forward with the use of the Regulatory Compliance Theory of Diminishing Returns.

National Association for Regulatory Administration (NARA) Key Indic...

Thursday, July 13, 2023

Here is a powerpoint presentation that NARA consultants did in Minnesota for stakeholders that is an excellent summary of the Key Indicator Methodology and how it can be used as part of state of Minnesota Department of Human Services Child Care Regulatory Modernization Project.

nara-stakeholder-presentation-nov-22_tcm1053-545244 Download

“Do No Harm” Risk Mitigation in Making Licensi...

Sunday, July 16, 2023

When it comes to licensing measurement and monitoring systems, risk assessment is the driving force in making licensing decisions, remembering the mantra: “ ***Do No Harm***“. There have been several posts giving examples in how one does this with risk assessment and key indicator methodologies which are the predominant approaches to differential monitoring. These methodologies are derived by two very different mathematical models, one based upon Likert scaling and weighting; the other based on predictive scaling and regulatory compliance history. However, what they have in common is a basic risk aversion.

With risk assessment rules, the selection process via a weighting methodology is critical in selecting those rules that place individuals at greatest risk of harm, and then making certain that these rules are always in regulatory compliance. With predictive rules, the selection process is through regulatory compliance history in general as well as with each individual rule. The key here is to make certain that the effect size is sufficiently large so that there are no false negatives.

The licensing decision process needs to ensure at all times that there is no regulatory non-compliance with the risk assessment rules and that there are no false negatives where general regulatory non-compliance is found with some other rule when the predictive rules are all in-compliance. In order to have an effective and efficient differential monitoring approach both these conditions must be met for the licensing system to work as it is intended with abbreviated inspection reviews. It is only by having this in place will a licensing agency feel confident that the necessary risk mitigation has been implemented in making licensing decisions.

Licensing Measurement and Monitoring Systems Relationship: How Regu...

Monday, July 17, 2023

In a previous RIKINotes post, a matrix was presented which demonstrated how licensing measurement and monitoring systems were related at a micro level. In this post, a more macro level or theoretical level will be presented.

As stated in previous posts as well, licensing measurement is very different from other social science measurements in that it is a very skewed data distribution and not normally distributed. And when regulatory compliance results are compared to program quality results a clear “ceiling effect” is present. This has been documented in several previous posts and in the licensing measurement research literature (please see the **Selected Publications** web page for several examples from Georgia, Saskatchewan, Washington, and Head Start). Also see the ehandbook: ***Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration*** which contains additional details about this relationship.

These results from licensing measurement influence how best to design and implement a monitoring system. Because of these results, differential monitoring was proposed as an alternative to the existing paradigm of “One Size Fits All” monitoring. Differential

monitoring which led to abbreviated licensing inspection reviews via risk assessment or key indicator methodological approaches were based upon specific risk aversion strategies employing mathematical models of weighting and prediction as outlined in the previous RIKINotes post.

As the earlier post presented the micro aspects of the relationship between licensing measurement and monitoring systems, this post presents the macro or theoretical aspects of this relationship for licensing researchers/scholars, regulatory scientists and licensing administrators to think about. Licensing measurement and monitoring systems are clearly driven by several regulatory science concepts, such as, the ceiling effect/diminishing returns, to do no harm, skewed data, and nominally based data. All these have an impact on human services regulatory administration and what an efficient and effective licensing system should look like.

Licensing Measurement and Monitoring Systems Word Cloud

Tuesday, July 18, 2023

Here is a word cloud generated from the licensing measurement and monitoring systems matrix which was posted last month. It really focuses on the key terms from that matrix as word clouds do.

It should come as no surprise that the concepts emphasized in the previously posted licensing measurement and monitoring systems matrix are the ones that appear the most prevalent in the work cloud (ceiling effect, do no harm, and rule; followed by false negative, licensing measurement quality continuum, monitoring systems paradigms, lack of variance and reliability and regulatory compliance instrument).

Licensing Measurement and Monitoring Systems Word Cloud

A 50-Year Journey from a Research Psychologist to a Regulatory Scie...

Saturday, July 22, 2023

Here is a post describing a journey of moving from a research psychologist to a regulatory scientist that I thought some psychology students might find interesting as they enter the field of psychology.

A 50 Year Journey from a Research Psychologist to a Regulato Download

World Forum Foundation Child Impact Initiative

Thursday, July 27, 2023

27.07.2023

Dear Professor Fiene,

Re: Early Childhood Quality Indicators Project

Thank you for registering your project, 'Early Childhood Quality Indicators Project' under the Child Impact Initiative. The World Forum Foundation's Working Group on Children's Rights is pleased to recognize the ways your efforts contribute to a better world for children.

We are confident that your work will positively impact children in your community and that by working together, we can create a global movement that transforms our world, one local project at a time.

As a Recognized Project of the Child Impact Initiative, your project will be listed in our official register, and you are granted permission to use the attached badge for the duration of your project.

We look forward to staying in contact, following your progress, and hopefully seeing you at the next World Forum on Early Care and Education.

Kind regards,

Prof Karen Graham
Initiative Lead
Child Impact Initiative
World Forum Working Group on Children's Rights

Mark Elliott
Executive Director
World Forum Foundation for Early Care and Education

7700 A Street | Lincoln, Nebraska 68510-4206 | worldforumfoundation.org

Fall 2023 Webinars on Licensing/Regulatory Compliance Measurement a...

Wednesday, August 02, 2023

Here is the proposed slide deck for the Fall 2023 webinars on licensing/regulatory compliance measurement and monitoring systems to be offered at the Licensing Seminar for the National Association for Regulatory Administration (NARA) and the National Center for Early Childhood Quality Assurance. These slides summarize the key points in the ebook ***Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration*** which is the textbook for the NARA Licensing Curriculum course on Licensing Measurement and Systems (The ebook is available on (NARA Key Indicators).

NARA Download

NARA Annual Licensing Seminar: Licensing Measurement and Monitoring...

Friday, August 04, 2023

licensing-measurement-and-monitoring-systems-fiene Download

Three Interesting Publications from Canada, Hawaii, and Rand on Sel...

Sunday, August 06, 2023

Three publications on child care quality that are interesting approaches to research. The first one is from Rand Corporation proposing a second generation of QRIS for early care and education programs:

QRIS Second Generation Download

This second publication is from Canada and provides an interesting best practices framework for child care licensing:

Framework for Child Care Licensing in Canada Download

The last publication is a dissertation utilizing child care quality in Hawaii as the backdrop:

Child Care Quality in Hawaii Dissertation Download

A Proposed Licensing and Quality Scale for the Human Services and E...

Wednesday, August 16, 2023

Previous posts have introduced the Regulatory Compliance Scale (RCS), in this post, based upon the latest regulatory science research, this RCS can be expanded to a more comprehensive and all inclusive Licensing and Quality Scale (LQS) which will seven components related to licensing the program quality.

The seven components are the following: the Regulatory Compliance Scale, risk assessment rules, key indicator rules, quality indicator standards, complaints about the facility, key indicator criteria being satisfied, and overall regulatory compliance history.

The Regulatory Compliance Scale (RCS) is a Likert type scale that has 1 – 7 scaling

where 7 = full regulatory compliance (no rule violations); 5 = substantial regulatory compliance (1-2 rule violations); 3 = moderate regulatory compliance (3-9 rule violations); and 1 = low regulatory compliance (10+ rule violations). The RCS is based upon 40 years of research and the corresponding international regulatory compliance and quality databases.

Risk Assessment Rules (RAR) are those rules which have been determined to place children at greatest risk for mortality/morbidity. These identified rules are generally always in full regulatory compliance.

Key Indicator Rules (KIR) are those rules that are statistically predictive of overall regulatory compliance with all rules. These identified rules are generally in the mid-range of regulatory compliance and are very predictive between distinguishing those high quality programs vs those that are not.

Quality Indicator Standards (QIS) are those standards that are statistically predictive of overall program quality on various dimensions such as staffing, curriculum, parental involvement, and teacher behaviors in the classroom.

Complaints can be any indications that there are issues at the specific facility that a concerned individual is reporting to the state licensing agency which require follow up and an abbreviated inspection review.

Key Indicator Criteria are the specific criteria which make programs eligible for a Key Indicator Abbreviated Inspection. Examples of Key Indicator Criteria are the following: no change in director, less than 10% enrollment change, less than 20% staff turnover, no change in corporate sponsorship, etc…

And lastly, Compliance History should either demonstrate a very low level of non-compliance or a constant regulatory compliance improvement over time.

LQS = RCS + RAR + KIR + QIS + Complaints + KI Criteria + Compliance History

The RCS should have a score either at a 7 or 5 level, Full or Substantial regulatory compliance.

The RAR should have no violations.

The KIR should have no violations.

The QIS should have a score in the range of 28-36+ on the Quality Scale.

There should be no complaints about the program.

All KI Criteria should have been met.

And the Compliance History should have very few non-compliances and always be improving.

When a program/facility can satisfy all of the above, this would place it at the highest LQS scoring level. If a program/facility cannot meet these various components, the resulting LQS score will be lower depending on the respective scores. As has occurred with the

RCS, it took a great deal of time to decide upon the scaling and point value based upon years of regulatory compliance data from around the world. The same will be true with the LQS but the hope is that it will not take quite as long to fill in the gaps related to scaling and point values. The more agencies that use the above LQS, the quicker it will be in the development of a corresponding international database.

Four Approaches to Program Monitoring related to Regulatory Complia...

Friday, August 18, 2023

Over the past 40 years, program monitoring has evolved substantially in the human services related to regulatory compliance and program quality performance measures (rules/regulations/standards). In this post, four approaches will be discussed in this evolution: instrument-based, inferential/differential, integrative, and coordinated.

Instrument-based program monitoring (IPM) is based upon tools, instruments, and/or checklists. It is quantitative in nature where reliability in the collection of data is increased when a data collection protocol is used along with the respective set of rules/regulations/standards. IPM appeared in the 1980's and replaced more of a qualitative, anecdotal, clinical case perspective. Human service agencies, in particular, early care and education programs were growing at a tremendous rate and where the case note approach worked well when there were not many facilities, as these facilities increased it became more difficult to keep up with demand and to utilize the data in making comparisons at the macro level. The case note approach is very effective as a micro, point in time measure; but it is not as effective with a large amount of data measured over time where comparisons need to be made at a macro level.

The IPM approach during the 1980s led to the development of more streamlined and abbreviated methodologies utilizing risk assessment and key predictor indicators as jurisdictions looked for more cost effective and efficient methods. These methodologies ushered in inferential/differential program monitoring in the 1990s in which abbreviated inspections were done with facilities that demonstrated a history of high compliance with rules/regulations/standards. These methodologies and the inferential/differential approach were endorsed by the National Association for Regulatory Administration (NARA) which helped to disseminate and promulgate them. NARA and the Research Institute for Key Indicators (RIKI)(the original developer of the key indicator & risk assessment methodologies and the differential monitoring approach) entered into an exclusive partnership in 2015 for the future development and dissemination of differential monitoring which had taken on increased significance because of its inclusion in the re-authorization of the Child Care and Development Block Grant (CCDBG) legislation in 2014. Differential monitoring has been highlighted in several federal/national publications.

The key indicator methodology eventually led to the development of quality key indicators in addition to licensing key indicators and with this new development, it ushered in a more integrative program monitoring approach that demonstrated a more balanced monitoring of both regulatory compliance and quality services. This initiative really started with the introduction of Quality Rating and Improvement Systems (QRIS) at the turn of the century but it really got moving as key indicators were being identified in both licensing and quality in the 2020s. Many states and jurisdictions are interested in the approach although it still has a long way to go for full implementation. IPM and differential

monitoring approaches are the dominant program monitoring systems being utilized by most jurisdictions at this point.

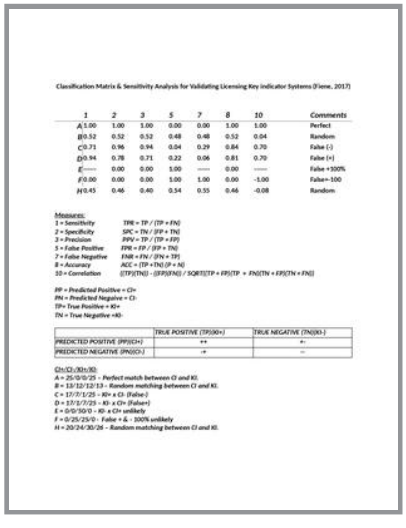
Another monitoring approach developed alongside Integrative Program Monitoring is called Coordinated Monitoring. This approach emphasized the need to better coordinate monitoring efforts across the various regulatory and quality initiatives that were springing up in many jurisdictions. This emphasis was very evident at the federal level where the problems of coordination across program areas was most evident.

This post provides a brief introduction into how human service program monitoring has changed over the past four decades. For those who may be interested in exploring this in greater depth, the following ehandbook should provide additional guidance: ***Licensing Measurement and Monitoring Systems***, available on the NARA website: https://www.naralicensing.org/key-indicators

Key Indicator Classification Matrix and Sensitivity Analyses

Friday, August 18, 2023

Here is a 2017 display of a classification matrix and sensitivity analysis validating the Licensing Key Indicator Methodology. For additional information regarding this validation study, please go to the NARA: National Association for Regulatory Administration's website https://www.naralicensing.org/key-indicators:



classification-matrix-sensitivity-analysis Download

Two Journeys, one National, one State, utilizing the Key Indicator ...

Sunday, August 20, 2023

Two different journeys utilizing the key indicator methodology in Kansas and Head Start.

klis-nara-ppt-2014 Download ohs-hski-summary-of-hski-analyses1 Download

The Need for Health and Safety Standards More Now Then Ever

Tuesday, August 29, 2023

I have written about the child care trilemma in this RIKINotes Blog several times, a term coined by Gwen Morgan many years ago, but it's relevance is as significant today as it has been since it was originally proposed by Gwen. The trilemma essentially describes how availability, affordability and quality all intersect and as you adjust one how that adjustment influences the other parts of the equation. I have spent the majority of my professional career on the quality side of the equation. Worked on availability and affordability a bit when I was research director for the Office of Children, Youth and Families in attempting to cost out an effective and efficient delivery system of child care services for families in Pennsylvania. But my focus has been on licensing measurement and monitoring systems over a 50 year career which is still continuing today.

As a research psychologist and a developmental regulatory scientist, I was interested in how licensing and in particular how health and safety standards had an impact on children while attending child care. This interest was ignited because of a long term professional affiliation and collaboration with a pediatrician who also had a keen interest in child care health and safety, Dr Susan Aronson. Sue and I started work together back in 1975 when she and I designed and implemented the **Child Development Program Evaluation System** for the Commonwealth of Pennsylvania. This system influenced our careers tremendously as both Sue and I became advocates for national health and safety standards. Sue focused on the standards while I focused on the program monitoring systems.

In the late 1980's into the early 1990's, the first edition of ***Caring for Our Children (CFOC)*** was developed and published. Sue played a very significant leadership role in getting ***CFOC*** to fruition. Since that time ***CFOC*** has gone through 3 editions (now in its fourth edition) and has been a main research resource for state licensing administrators as they revise and promulgate their own child care rules more locally. It also morphed into a series of publications that helped to streamline and focus its standards based upon risk assessment (***Stepping Stones to Caring for Our Children***) and another document based upon predictable key indicator risk assessment (***Caring for Our Children Basics***). All these documents played key roles in helping to move the needle forward towards voluntary national health and safety standards, especially with publication of ***Caring for Our Children Basics*** which was encouraged to be used across all early care and education programs by the federal Administration for Children and Families.

Unfortunately, the COVID pandemic has thrown this delicate balancing of the trilemma equation out of balance. The gains made have been lost and there is the definite possibility of things getting worse as American Rescue funding for child care will be terminated as of September 30th of this year. The focus will be on availability followed by affordability and with quality in a distant third place. So the trilemma equation will be severely out of balance. The concern is that there will be a continuing eroding of the health and safety standards that are part of the quality dimension in the trilemma equation. It started during the COVID pandemic as states focused on trying to keep facilities open and operating. Since 2020, there appears to be a continuing concern by child care advocates that this trend of relaxing health and safety standards will continue so not to impede new child care facilities from opening and to keep existing child care

facilities from closing. The ultimate result will be that the gatekeeper function of licensing will be reduced if this trend continues and our nation's children will be put at increased risk of morbidity and mortality.

National Center for Early Childhood Quality Assurance Licensing Pro...

Saturday, September 02, 2023

The slide deck for the presentation this week (September 7th, 2023) on regulation theories of monitoring and innovations in licensing. This is a wonderful series that the National Center sponsors for all licensing professionals throughout the United States.

PD Session on 9.7.23 KDC FINAL8.28.23 Download

NARA Licensing Seminar Update

Saturday, September 09, 2023

Here is the latest information provided for the ***NARA Licensing Seminar*** in which the licensing measurement and monitoring system lectures and ebook are being presented.

Licensing Measurement and Monitoring Systems Talk LMS ehandbook 3rd Edition Fiene Download

Regulatory Compliance Procedural Drift or Lack of Enforcement

Tuesday, September 12, 2023

Attached is a very interesting blog post on regulatory compliance procedural drift: ***Why do people violate rules? The concept of procedural drift***. It is an interesting read and makes a great deal of sense from a behavioral psychology point of view. However, as I read it (and I recommend everyone read it first before continuing with this blog post), it got me thinking about the relationship between regulatory compliance and enforcement or the lack thereof. So, when you come to the graphic on page 2 of the attached article, I substituted in my mind "enforcement" for "time" and essentially came up with the relationship that without enforcement you will have regulatory compliance procedural drift in which a new normal is established but at a lower level than originally promulgated. This is an alternate spin or explanation to the original thesis in Dr Dekker's theory related to behavioral psychology. However, I think both explanations could co-exist and there is value added in applying procedural drift to the regulatory science field.

There is an extension to this regulatory compliance procedural drift concept as it relates

to the lack of enforcement relationship that does become troubling. I am not as concerned about the establishment of a new normal but what I would be more concerned about is the random application of enforcement which would create a very dangerous situation. For example, let's go back to the article and the scenario of the traffic light. Having established the new normal (three cars going through a red light) which obviously is not in regulatory compliance with the original rule (no cars go through a red light) has been accepted overtime, but it is consistent. It is the *new normal*. However, what happens if this is coupled with random enforcement in which one car passes versus three cars pass and there is no rhyme or reason to this determination. Regulatory compliance would bottom out (fewer cars would follow the rule because it is constantly changing) and the outcome (number of accidents) would increase exponentially.

This re-interpretation of Dr Dekker's procedural drift is provided as an extended regulatory compliance issue when enforcement is either lacking or randomly applied because enforcement of rules in regulatory administration is an important issue. It also would be interesting to apply various enforcement strategies to determine their impact on procedural drift. This would be another example of regulatory science being applied to regulatory administration. Procedural drift is an interesting concept and one that does need further exploration as it relates to regulatory compliance. One area I want to explore in greater detail is its relationship to the regulatory compliance theory of diminishing returns and the ceiling/plateauing effect observed in regulatory compliance data when compared to program quality.

-Why do people violate rules_ The concept of procedural drift Download

About RIKI: Research Institute for Key Indicators Data Laboratory a...

Tuesday, September 12, 2023

I wanted to provide some background information about the Research Institute for Key Indicators Data Laboratory at Penn State University to many of you who might be new to the RIKI website blog. The focus of the institute is to do licensing and regulatory administration research utilizing the principles drawn from the relatively new regulatory science field in licensing measurement and monitoring systems as it relates to the human services. You will find a RIKINotes blog (250 posts and growing) and Selected Publications/Presentations/Tools (200+) on the website. Everything is downloadable in pdf format and it is all free. It may help you in your licensing job.

The institute is affiliated with the Edna Bennett Pierce Prevention Research Center at Penn State University; the National Association for Regulatory Administration; and Results for America.

Please feel free to download any materials you feel will help you in your efforts to improve services for your children and families that you serve. And please do not hesitate to contact me if you have questions about any of the materials or if you have questions related to licensing measurement and monitoring systems at rfiene@rikinstitute.com. Also, please feel free to share anything you get with your colleagues in your respective agencies if you think they may find the information useful.

Thank you, Rick Fiene.

Integrated and Differential Monitoring Matrix: The Best of Both Worlds

Thursday, September 14, 2023

Presented below is a proposed matrix depicting the relationship of integrated monitoring (IM) and differential monitoring (DM). Both integrated monitoring and differential monitoring have been discussed separately in previous posts. This 2 x 2 matrix provides a visualization of how the two approaches potentially intersect and can be used in tandem. Just as a reminder, differential monitoring involves doing an abbreviated inspection instead of a full licensing inspection utilizing either a risk assessment or a key indicator predictor methodology. Integrated monitoring is the infusion of quality elements into a given set of rules or regulations, most likely through the use of ***Caring for Our Children***.

The 2 x 2 matrix provides four possibilities: A = Regulatory Compliance rules which results in a full inspection; B = Program Quality standards which results in a full inspection; C = Regulatory Compliance rules which results in an abbreviated inspection; and D = Program Quality standards which results in an abbreviated inspection. The essence of any model should be its relevance and hopefully its elegance. The below 2 x 2 matrix is relevant because the two monitoring approaches are the most salient ways of conducting inspections for human services regulatory administration. But hopefully it is also elegant in its simplicity and direct modeling, that we will need to see if it resonates with licensing administrators & researchers as well as regulatory scientists.

This matrix should help licensing administrators think through the appropriate use of these various approaches and what it means when combining them. Differential monitoring is an encouraged approach via CCDBG/CCDF, integrated monitoring is too new to make a determination regarding its use. I think it is the next evolution of program monitoring related to regulatory science and administration by providing a balance and continuum along the quality domain with regulatory compliance/licensing as the foundation of this continuum. **TRLECE: The Role of Licensing in Early Care and Education** has developed a wonderful research brief on program monitoring which highlights how states are using differential monitoring that I highly recommend (The Report).

Integrated Monitoring (IM)Program QualityRegulatory ComplianceProgram QualityDifferential Monitoring (DM)Full Inspection*AB*Abbreviated Inspection*CD*IM x DM Matrix

Also, you may want to consult ***Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration*** which has a chapter about integrated monitoring (Licensing Measurement and Monitoring Systems ebook).

The Importance of the Theory of Regulatory Compliance as it relates...

Wednesday, September 20, 2023

This RIKINotes Post will provide the latest thinking and research related to the Regulatory Compliance Theory of Diminishing Returns and how it influences licensing measurement and monitoring systems in the human services, in particular early care and education. Some information has appeared in previous posts over the past couple of years but this post will consolidate these findings with the most recent findings related to the theory.

The theory of regulatory compliance has had a tremendous impact on human services licensing measurement and monitoring systems when taken to its logical conclusion which is that there is no significant difference in the level of quality in programs in substantial versus full compliance with a given set of early care and education rules. However, the theory does provide support for the ability to distinguish levels of program quality in low regulatory compliance performers and those in substantial regulatory compliance. There is now empirical evidence from 5 rather large studies conducted across the USA and Canada both within states and provinces as well at the national level in the USA.

From a public policy point of view, the theory opens up a new way of thinking about how best to monitor which is addressed in the next paragraph by moving from a “one size fits all” to one that is more targeted to the regulatory compliance needs of the provider of services. An approach that focuses on those programs that are struggling to meet all rules in providing them with additional resources and guidance while at the same time doing abbreviated reviews of the top performers and getting out of their way because they have a history of high regulatory compliance with all rules. The theory provides a better balance of “do no harm” and “do good” by infusing quality into rules and by mitigating risk to children while enhancing their program’s performance.

Because of this above relationship between program quality and regulatory compliance, it ushered in differential monitoring, an abbreviated form of program monitoring which led to the risk assessment rule and key indicator rule methodologies. The precursor to differential monitoring and providing the methodology to conduct the regulatory compliance studies was instrument based program monitoring.

A by-product of the studies conducted regarding the theory of regulatory compliance made clear that frequency counts (nominal measurement is a real limitation of the data) were not effective without a weighting component which ushered in the concept of a regulatory compliance scale which placed regulatory compliance into buckets of full, substantial, mediocre, and very low regulatory compliance. This ordinal measurement technique is much more effective than having straight frequency counts of violations and is more consistent with licensing theory in which all rules are not created nor administered equally. There is a need to weigh individual rules in order to take this effect into account. The next logical step for a regulatory compliance scale is to apply it to individual rules and not just to the final aggregated regulatory compliance score. There is also the need to build in an exponential component to the weighting protocol in order to increase the variance in the data and increase our ability to distinguish differences in scoring.

With the introduction of utilizing substantial compliance as an equivalent positive regulatory compliance outcome as full regulatory compliance, a potential analytical problem was created with introducing additional false negatives in making licensing decisions in which regulatory compliance was recorded when in reality other areas of non-compliance were present. This was mitigated by a revision to the 2 x 2 Validation Matrix by cubing (^3) the false negative cell in order to essentially eliminate any rule that had any significant false negative values (FC* = ((A)(D)) – ((B^3)(C)) / sqrt (WXYZ). Full regulatory compliance should be able to be used in the majority of cases (the standard 2 x 2 Validation Matrix can be utilized)(FC = ((A)(D)) – ((B)(C)) / sqrt (WXYZ) because of the highly skewed data distribution with very little variance (data dichotomization is warranted in this special case); but in those cases in which substantial compliance comes into play, then the 2 x 2 Validation Matrix revision needs to be used.

The last development is the introduction of a 2 x 2 matrix showing how to combine the use of differential monitoring (DM) and integrated monitoring (IM) into a blended approach to program monitoring (this proposed matrix is highlighted in a previous post earlier this month (September 14th)–the DM x IM Matrix). The ultimate goal is the delicate balancing of regulatory compliance and program quality in improving facilities. This should be done in the most effective and efficient way. By combining differential monitoring (efficiency) with integrated monitoring (effectiveness) it may be possible to reach this blended approach to program monitoring.

The Implications of all Rules Not Being Created nor Administered Eq...

Friday, September 22, 2023

There has been an assumption or even a paradigm focus in which it is assumed that rules are all created equally and are administered equally. On the surface this appears to be the case and what is the big deal. It is a big deal when it comes to how the rules get measured. If they are truly equal and are independent of each other, then they would be measured at a nominal level. However, if they are truly not equal and are dependent upon each other in that there is a ranking in which rules can be sorted on a specific metric, such as risk to the client. Well, that changes everything where we move from a nominal to an ordinal measurement strategy.

Let’s take a specific example, such as comparing a rule dealing with supervision of children and a rule that requires a signature of a parent or guardian in order to review children’s files so that the child can go on a field trip. It can be argued that the supervision of children places children at greater risk than if a signature is missing. To follow this thinking, then the rule dealing with supervision carries more weight than the signature rule. The rules are related in that one requires actual supervision while the other rule is a pre-requisite (parental approval) for going on a field trip where supervision will be required. However, missing a signature is much less of a concern than missing a child while on the field trip. These rules are dependent and related and there would definitely be a ranking with the supervision rule being weighted more heavily than the signature rule. With this ranking we have moved the nominal based rules to an ordinal based rule schema.

If we take this analogy to its logical conclusion then all the rules are inter-related and need to be rank- ordered accordingly. In other words, they need to be assigned weights

based upon the relative risk to a child when non-compliance with the rule occurs. Many jurisdictions have done this type of weighting consensus either mathematically via a likert approach or by a more qualitative approach based upon group consensus. In either case, all the rules are rank ordered and weighted on the basis of risk assessment for morbidity or mortality if non-compliance is determined. The most comprehensive example of this approach in the publication *Stepping Stones to Caring for Our Children*.

This movement from nominal to ordinal measurement drastically changes the potential statistical analyses when utilizing these data to compare programs on various quality dimensions. For example, in studies involving the theory of regulatory compliance it became readily evident that utilizing the nominal measurement scale of rule violations was not as effective as utilizing an ordinal measurement scale. A Regulatory Compliance Scale based upon full, substantial, median, and low levels of regulatory compliance has been found to be much more advantageous in doing these types of analyses in early care and education program quality studies.

The measurement of rules needed to match the importance of the rule and how it was administered. It was the theory meeting up with the metrics of how to assess the rule. Weighting is critical because the theory is that all rules are not created equally as has been the predominant thinking and promulgation of rules.

The Application of Artificial Intelligence to Regulatory Compliance

Thursday, September 28, 2023

Here is a paper that describes the use of artificial intelligence (AI) to regulatory compliance and COVID19 exposure rates. It is an example of applying AI to the program monitoring of human services delivery systems, in particular early care and education. An introduction below is followed by the full paper.

CHACR AI Demo Download

An Example of AI Applied to Regulatory Compliance (Staff-Child Ratios) and COVID19 Exposure

Richard Fiene PhD

Research Institute for Key Indicators Data Lab/Penn State University

October 2023

There has been a great deal of discussion regarding the impact of AI (Artificial Intelligence) on various industries. One where there has not been much discussion is the human services, especially early care and education, child residential, and adult residential services. I would like to begin that discussion with a mathematical model for a new contact hour metric which has been utilized to determine regulatory compliance with staff-child ratios in childcare programs and potential exposure rates from COVID19 also in childcare programs.

This application of AI is delineated in the following paper written by the author and Dr Sonya Stevens. The paper contains the questions to be asked, the algorithms/equations to be used, the mathematical model based upon the area of a trapezoid, a conversion table for making decisions about regulatory compliance and exposure rates, and the results of the specific study undertaken in the state of Washington.

This mathematical model can be used at a distance remotely with no need to collect data on site which was a real advantage during the pandemic. The other unique aspect of this model is taking a regulatory standard or rule such as staff-child ratio and depicting it as a new metric called contact hours and mathematically looking at it as a geometric relationship, the area of a trapezoid. Once this is done, just follow the math after obtaining the necessary data points via the six questions asked of the childcare program.

The conversion table can then be used to determine regulatory compliance in comparing those results with the actual results obtained from the algorithms. The essence of the table is that a program is in compliance if the trapezoidal area is not exceeded while regulatory compliance is not met when the trapezoidal area is exceeded.

I hope that this example spurs other thinking in how AI can be used in other areas of human services regulatory compliance measurement and regulatory science. It is an area that could be well primed for the use of AI if we think there are other areas where what we are observing could be defined in mathematical terms. This provides an example in which the observation of the number of children and adults in a particular setting can be measured mathematically through the geometry of the area of a trapezoid.

It also helps us redefine how we do program monitoring in moving from onsite observations to collecting data remotely at a distance via an Artificial Intelligence approach.

Regulatory Compliance Ceiling Effect Applied to Artificial Intellig...

Wednesday, October 04, 2023

Artificial intelligence (AI) is governed by rule learning via machine language in different formats or platforms. It has the ability to be very effective and efficient in identifying patterns from existing data that it curates. Presently it is limited in many of its responses as it continues to learn the most accurate, efficient means for answering questions. However, is it possible that what we are observing is a more general phenomenon of rule based systems which involves a ceiling effect.

The ceiling effect has been identified in regulatory compliance when data from a respective rule based system is compared to the relative quality of that same system. Could we be observing the same type of relationship in the AI platform responses? Those rule based systems are governed by a ceiling effect where responses have a limit in how effective they will be based upon their efficient response rate. For example, is the ceiling effect a more generic theory that can be applied to all rule based systems and goes beyond regulatory compliance measurement and more to the inherent structure of these systems.

Are more generative type AI systems more effective at eliminating the ceiling effect than a language based system that relies on data acquisition? It will be interesting to note the further development of AI platforms to see how this balance of effectiveness and efficiency plays out.

Please see previous posts on the regulatory compliance ceiling effect and diminishing returns as applied in human service regulatory and rule based delivery systems.

Development of the Fiene Coefficient

Sunday, October 08, 2023

Attached below is an anthology of technical research notes and research reports delineating the development of the Fiene Coefficient for licensing and program quality in early care and education programs.

-FC Theory and Research 10 Download

The Fiene Coefficient

October 2023

This anthology of technical research notes and research reports will trace the history of the development of the Fiene Coefficient (FC) which has been used in licensing and regulatory science to develop key predictor rules/regulations and most recently in the design and implementation of key quality indicators in early care and education programs. The research is organized and presented by chronological order starting with the first publications in the 1980's up to the present time.

The story begins in the late 1970's when the Federal Department of Health, Education, and Welfare (HEW) was interested in coming up with a series of statistical predictors that would demonstrate full compliance with the Federal Inter-Agency Day Care Requirements (FIDCR). HEW was interested in doing abbreviated reviews of child care programs that were governed by the FIDCR. They were concerned about the amount of time that monitoring reviews were going to take with the full set of standards.

The technical research notes and research reports will delineate the development of both key predictors as well as risk assessment rule methodologies. This anthology is for licensing researchers, regulatory scientists and licensing administrators to provide the theory and background research to the methodologies. This is the only way that regulatory science will be able to move forward from a measurement and monitoring system perspective. Thought it was helpful to have all these reports and notes in one location rather than spread out in the research literature.

This research was authored by Dr Rick Fiene and his collaborators over the past 40 years. The methodologies have been validated in several states and provinces but that is for another anthology. For the time being, RIKI - Research Institute for Key Indicators Data Laboratory at Penn State University has all these studies on their Selected Publications web-page.

Just as a footnote, Key Indicator Rules are statistical predictor rules that predict overall regulatory compliance with a full set of rules. Risk Assessment Rules are those rules that place children at greatest risk of morbidity or mortality. When these two methodologies are used together they provide a unique balance of prediction and safeguarding via an abbreviated monitoring approach.

Richard Fiene PhD, Research Psychologist and Regulatory Scientist, Research Institute for Key Indicators Data Laboratory, Penn State University, and the National Association for Regulatory Administration. RFiene@RIKIInstitute.com

https://prevention.psu.edu/persons/rick-fiene/

https://www.nara4licensing.org/key-indicators

The Relationship between the Theory of Regulatory Compliance and th...

Tuesday, October 10, 2023

Here is a short paper on the relationship between the theory of regulatory compliance and the Fiene Coefficients. It provides more of a mathematical formulation than a strict narrative presentation which has been done in the past. The paper should be relevant for licensing researchers, regulatory scientists, regulatory compliance and affairs officers, and licensing administrators as they grapple with the new theory and methodologies.

TRC x FC Download

The Balancing of Efficiency with Effectiveness in Doing Licensing R...

Thursday, October 12, 2023

In this RIKINotes Post we need to address the delicate balancing of efficiency with effectiveness in doing program monitoring and licensing reviews. Differential monitoring has been suggested as an efficient approach to program monitoring. However, I do want to caution licensing administrators when they are considering differential monitoring approaches such as key indicator predictor or risk assessment rule methods for conducting abbreviated reviews in making licensing decisions.

There is a delicate balance between regulatory compliance and program quality which has been delineated in the regulatory compliance theory of diminishing returns. In taking this relationship one step further we always need to make certain that our efficiency approaches do not negatively impact the overall quality of services being provided. In other words, abbreviated reviews should not be conducted if it is going to jeopardize program quality. Only a more comprehensive review which is far more effective in determining the overall quality of a program is in order to maintain this delicate balance. When a program has demonstrated this attained level of regulatory compliance and quality it would then be eligible for a more efficient, abbreviated review focusing on

specific predictor rules or high risk rules.

As licensing administrators, you want to make certain that all clients are healthy and safe but also that they are receiving the highest level of quality care possible. Balancing “do no harm” and “doing good” is critical in maintaining the balance of efficiency and effectiveness in a program monitoring system. It is far to easy to drift to one extreme or the other in which too much emphasis on efficiencies in attempting to reduce the number of key predictor rules or the number of actual on-site reviews will decrease the overall quality of the program setting.

Differential monitoring is not suggested as a generic approach for all programs but rather only for those who have a history of high regulatory compliance and quality. The only exception to this would be if a state/province wanted to use the differential monitoring approach as a screening to determine what subsequent reviews would look like. This approach could work in high caseload jurisdictions in order to prioritize how to do comprehensive reviews (effectiveness) and those programs that would be eligible for abbreviated reviews (efficiency).

Contributing to Early Childhood Outcomes: The Role of Licensing and...

Friday, October 13, 2023

How do regulatory compliance rules and quality initiative standards contribute to how well children are doing in early care and education (ECE) programs? This is probably the most important question facing early childhood educators and researchers. In the following graphic and attached research note are presented some thinking related to this question and the contributing factors of professional development, program quality and regulatory compliance predictive relationships with early childhood outcomes. It is based upon ECE research from the past 50 years.

A Theory on the Relationship With Professional Development, Program Quality and Regulatory Compliance Predicting Early Childhood Outcomes

Richard Fiene, Ph.D.

July 2019

This abstract is the compilation of 50 years of research into early childhood professional development, program quality indicators and regulatory compliance and their respective impact on early childhood outcomes. Professional development, program quality and regulatory compliance all have impacts on early childhood outcomes (ECO) but if we put them all in the same equation, what are their relative impact on outcomes. That is the purpose of this abstract. Based upon results from the Research Institute for Key Indicators (RIKI) Early Childhood Program Quality Improvement and Indicators Model (ECPQIM) data base, it is now possible to ascertain their relative weights.

For purposes of this abstract, professional development (PD) includes any training, coaching or technical assistance which focuses on teaching staff. Program quality (PQ) includes Quality Rating and Improvement Systems (QRIS) standards and their respective observational evaluations (ERS, CLASS). Regulatory compliance (RC) includes licensing health and safety rules and regulations as promulgated and enforced by state agencies. In the past, these systems have been dealt with in silos and there has been very little attempts at combining them in any fashion. One of the results of the ECPQIM data base was and is to attempt combining these various systems into a unified equation or algorithm.

Based on the results of the ECPQIM data base results, the following equation/algorithm can depict this unified relationship:

$$ECO = \Sigma\,(.50PD + .30PQ + .20RC)$$

In this relationship, the largest impact comes from the PD system, followed by the PQ system and lastly by the RC system. The implications of this relationship are that states may want to reconsider how they are allocating resources based upon this above equation/algorithm. This is a controversial proposal but one that should be considered since it is driven by empirical evidence into the relative impact over the past 50 years of research related to professional development, program quality and regulatory compliance as they relate to early childhood outcomes.

Here is the research note that was written back in 2013 proposing the relationship amongst licensing, pre-k, QRIS, accreditation, & professional development and their potential impact on child outcomes. It helps to support the results presented above in the theory of child outcomes contributions from the various systems.

The Effectiveness/Efficiency Relationship within the Theory of Regu...

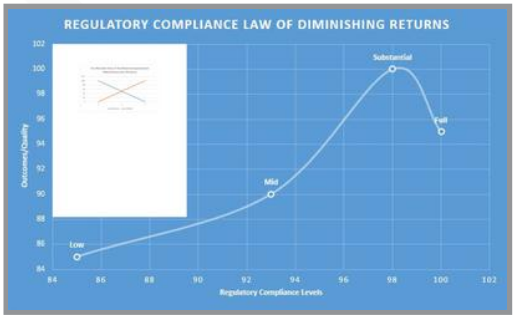
Sunday, October 15, 2023

Both the effectiveness/efficiency relationship and the theory of regulatory compliance have been presented in several previous posts. In this post, let's look at how the effectiveness/efficiency relationship varies within the theory of regulatory compliance.

Let's review briefly, the theory of regulatory compliance (see graphic below for a depiction of this relationship between regulatory compliance and program quality) has three major areas or buckets of compliance: low/mid compliance, substantial compliance, and full compliance in how they relate to program quality. The effectiveness/efficiency relationship (see the second graphic below for a depiction of this relationship) also has three major pertinent areas as it relates to regulatory compliance: high effectiveness x low efficiency (1), low effectiveness x high efficiency (3), and mid effectiveness x mid efficiency (2)(in balance) which then could lead to high effectiveness x high efficiency or low effectiveness x high efficiency.

Low regulatory compliance equates with low effectiveness x low efficiency while full regulatory compliance equates with high effectiveness x low efficiency and substantial regulatory compliance equates with mid effectiveness x mid efficiency (in balance) which will lead hopefully to high effectiveness x high efficiency but it could lead to low effectiveness x high efficiency if there is too much emphasis on cutting back in what is reviewed. This is the essence of the theory of regulatory compliance to determine the balance of effectiveness and efficiency as it relates to the Fiene Coefficients. A previous post dealt with this relationship. This post extends that thinking to how it could play out with the dual relationship of effectiveness and efficiency.

The two related figures for the theory of regulatory compliance and the relationship between effectiveness and efficiency are provided below (place the effectiveness/efficiency relationship within the theory of regulatory compliance at the three data points of low/mid, substantial, and full regulatory compliance as suggested in the above paragraphs and you can get a sense of how the relationship of effectiveness and efficiency potentially can change):



Potential Correlates of Child Injuries in Child Care Centers

Monday, November 13, 2023

This RIKINotes Post will provide a glimpse at a larger study involving an eastern state with exploring the relationship between child injuries in childcare centers and other regulatory compliance and demographic characteristics. Regulatory compliance does not have many empirical demonstrations of outcome studies in determining if children are healthier and safer in childcare centers. This post will attempt to begin to provide some guidance related to this question.

The key variables in this study are the following: child injuries, complaints, program size, and regulatory compliance. Child injuries are the outcome variable, what we are trying to impact via a reduced rate. Complaints, program size and regulatory compliance are the independent variables that were collected by the respective state where this study is being conducted. The number of programs reported upon in this abstract is 200. The final study will involve over 400 childcare center programs. However, the results in reviewing the first 200 programs are so statistically significant that it warranted sharing the results to date. It is definitely something that all licensing and regulatory staff need to be looking at.

The results show some very interesting relationships. For example, and this should not be overly surprising, there is not a very strong relationship between child injuries and overall regulatory compliance. When you think about overall regulatory compliance, some rules could influence child injuries directly, such as overall supervision, group size, staff child ratios and the overall safety of the childcare center; but when you think of the other rules that make up regulatory compliance involving structural, or record documentation compliance, there is not as direct a relationship. However, it is this more targeted rule identification that does have an effect, and this is very evident when one begins to look at the series of complaints and its relationship to child injuries ($r = .20$; $p < .005$).

The strongest predictor of child injuries is not regulatory in nature but more demographic related to the size of the program. Child injuries generally occur in larger childcare centers rather than in smaller centers ($r = .41$; $p < .0001$). So, it appears that we really want to pay attention to the size of the childcare center, especially if the program has an enrollment of over 100 children. And again, this makes sense in that the larger the center and the more children to supervise would provide greater opportunities for child injuries to occur. Remember that these data demonstrate relationships and are not cause and effect.

This brief RIKINote post is presented in the interest of attempting to get additional empirical evidence in the research literature related to regulatory compliance outcomes. So far in this pilot study, it is demonstrating that overall regulatory compliance is not significantly related to preventing child injuries, but specific, targeted rules based upon the number of complaints have a significant relationship between child injuries and these complaints. This is consistent with the theory of regulatory compliance in which it is finding the deep-rooted cause structure when it comes to regulatory compliance rather than a more generic regulatory compliance level. This pilot study is being expanded to include all the childcare centers in the particular state and to expand the study to other jurisdictions to determine if these same relationships hold up under greater scrutiny. Also, diving into family child care homes should provide an interesting comparison to center

care.

At this point, the takeaway I would hope for licensing and regulatory staff is that the overall size of the center and the number of complaints demonstrate a statistically significant relationship to the number of child injuries at those respective child care centers. For any licensing or regulatory staff who have questions about this outcome study or would be interested to share their experiences related to child injuries in their particular jurisdiction, please reach out to Dr Fiene at ***RFiene@RIKInstitute.com.***

Theories of Monitoring and Innovations in Licensing

Saturday, November 25, 2023

Here is the link and powerpoint slides to the National Center for Early Childhood Quality Assurance Webinar on Theories of Program Monitoring and Innovations in Licensing.

PD Session on 9.7.23_508 Download

Calling All Licensors: Child Abuse Prevention and Injuries, Prevent...

Friday, December 01, 2023

This post will deal with several outcome variables related to our health and safety licensing system and a slight excursion into the program quality domain. But let's start with the health and safety variables: prevention of child abuse and injury, keeping children healthy, prevention of infectious diseases, and immunizations. This post is intended for those who license early care and education programs. Usually when we talk about child outcomes, the research focuses more on the relationships between quality elements and how well children are doing in the respective programs. In this post, the focus is more on the licensing health and safety end of the continuum.

Prevention of child injury is a difficult variable to deal with. Children get injured when active even when supervised. Ask any parent, it just happens. The parents are not being neglectful although that clearly has an impact but even when parents are watching their

children closely, injuries do occur. We need to be realistic in what we can accomplish in child care centers. So, now we take a large group of children and place them in a child care center. And if we learned anything from the pandemic, the density of individuals has an impact on health and safety. In the research literature, the size of the program doesn't have much predictive ability until we come to child injuries where it does have. Larger programs have more injuries than child care centers that are smaller in size. But this makes a great deal of sense, the more children needing supervision is going to place increased demands on staff for observing and making sure children are safe. What would be a realistic goal when it comes to the prevention of child injuries? Hopefully the rates are lower than what we are seeing in children's homes and in their indigenous neighborhoods for starters. As a footnote, the number of complaints regarding a program is a predictor of child injuries, the more complaints, the more injuries. There does not appear to be a relationship between child injuries and adult child ratio or group size which would be expected, especially with there being a relationship between child injuries and the size of the program. But this might be a place to utilize a new regulatory metric called the "Contact Hours Metric". More about this metric when discussing the prevention of infectious diseases below.

Prevention of child abuse is equally difficult to deal with. But in this case, it is more about how well the child care staff are trained in identifying and reporting of suspected child abuse. We do know that child abuse prevention training programs vary a great deal across the USA. We also know that the incidence of reporting child abuse in child care is extremely low. This is wonderful if it is true and not because child care staff are not being properly trained on what to look for and how best to report.

Prevention of infectious diseases is and has always been a perennial problem in child care. Parents know all too well that until their child builds up the immunity to the various viruses circulating in a child care setting their child is going to get sick. Emphasis on preventive efforts such as hand washing helps but let's face it when we bring the large numbers of children together, it is one of the by-products of this interaction and our emphasis of helping children to learn about sharing and to engage in such activities. What we have learned from the pandemic the spread of infectious disease is a difficult bug to prevent. Obviously through reducing adult child ratios, group size and increasing the amount of space for children helps to reduce to a certain extent the spread of infectious diseases along with vigilant hand washing. Several methodologies were created during the pandemic that may be helpful in ongoing monitoring of this issue, such as a new Contact Hours metric which was mentioned above regarding child injuries. For additional information regarding this new regulatory metric, please consult the following: ***Contact Hours: A New Metric for Monitoring Child Injuries and Illnesses in Child Care Centers,November 2023,DOI: 10.13140/RG.2.2.11768.21767.***

The one area when it comes to rules and regulations that has surfaced as a direct intervention that leads to healthy development in young children has to do with immunization status. Immunization status is both a process and outcome variable. There is a direct relationship between this rule in that it clearly demonstrates an outcome with children who are properly immunized. The other aspect of this rule is that it is a good predictor rule for all regulatory compliance. So it does double duty by seeing compliance with this specific rule.

On the program quality end of things, licensing and health & safety standards can only go so far when it comes to impacting the developmental quotients for children. An excursion into program quality that focuses on the qualifications of teachers and their interaction

with all children needs to be the focus. But even with this focus positive results will only occur with a true partnership with parents and families. It is clear in the ECE research literature that parents are the key to a child's development and family involvement and a parental focus and partnership is key for a lasting developmental change. There is growing evidence and research in this area demonstrating the key linkages between staff qualifications, interactions, and program philosophy & curriculum. This is a hopeful development that should continue to demonstrate the linkages between licensing and quality initiatives.

The reason for this post is to make individuals aware of the key outcomes when it comes to early care and education licensing and monitoring and what the limitations are. We need to be realistic in our expectations and what are the best ways to protect children. So much additional research is needed here. I have always been amazed by the need to do research in the licensing domain but have found it lacking. Here is probably the most influential policy making arena that impacts all early care and education but so little research has focused on the impact of regulatory compliance on children. Albeit, I have suggested that we need to go well beyond licensing in order to deal with children's developmental status by utilizing more of an integrated form of monitoring which combines health and safety standards with program quality focused standards.

The Uncertainty-Certainty Matrix for Licensing Decision Making

Wednesday, December 06, 2023

Here is a revised abstract taking into account the policy and program implications of the uncertainty-certainty matrix as it relates to licensing decision making.

The Uncertainty-Certainty Matrix for Licensing Decision Making: Policy and Program Implications

Richard Fiene PhD

Research Institute for Key Indicators Data Lab/Penn State University

December 2023

This abstract will take the Confusion Matrix which is a well-known metric in the decision-making research literature and refocus it for regulatory science within the context of the definition of regulatory compliance and licensing measurement. It will also deal with the policy implications of this particular metric. In this abstract, it is proposed that the Uncertainty-Certainty Matrix (UCM) is a fundamental building block to licensing decision making. The 2 x 2 matrix has been written about in several posts in this blog and is the center-piece for determining key indicator rules, but it is also a core conceptual framework in licensing measurement and ultimately in program monitoring and reviews.

The reason for selecting this matrix is the nature of licensing data, it is binary or nominal in measurement. Either a rule/regulation is in compliance or out of compliance. Presently most jurisdictions deal with regulatory compliance measurement in this nominal level or binary level. There is to be no gray area, this is a clear distinction in making a licensing decision about regulatory compliance. The UCM also takes the concept of Inter-Rater Reliability (IRR) a step further in introducing an uncertainty dimension that is very important in licensing decision-making which is not as critical when calculating IRR. It is moving from an individual metric to a group metric (See Figures 1 & 2) involving regulatory compliance with rules.

The key pieces to the UCM are the following: the decision (D) regarding regulatory compliance and actual state (S) of regulatory compliance. Plus (+) = in-compliance or Minus (-) = Out of compliance. So, let's build the matrix

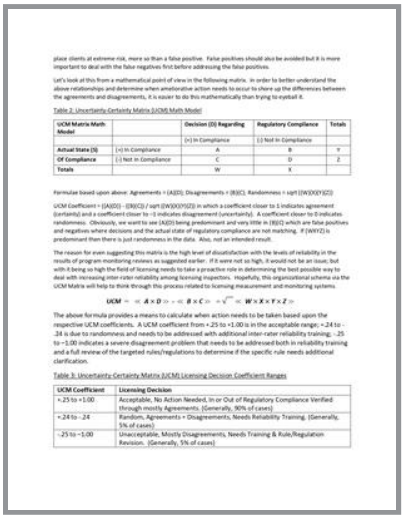
Table 1: Uncertainty-Certainty Matrix (UCM) Logic Model

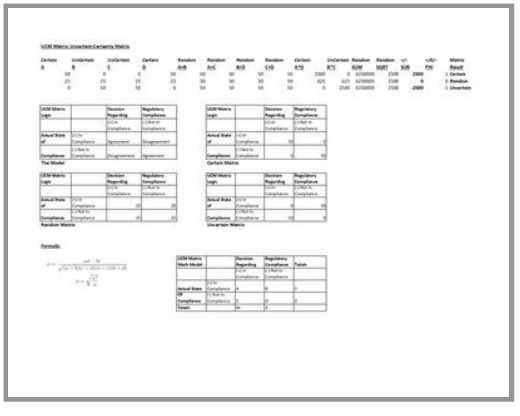
UCM Matrix Logic		Decision (D) Regarding	Regulatory Compliance
		(+) In Compliance	(-) Not in Compliance
Actual State (S) of Compliance	(+) In Compliance	Agreement	Disagreement
	(-) Not In Compliance	Disagreement	Agreement

The above UCM matrix demonstrates when agreement and disagreement occur which establishes a level of certainty (Agreement Cells) or uncertainty (Disagreement Cells). In a perfect world, there would only be agreements and no disagreements between the decisions made about regulatory compliance and the actual state of regulatory compliance. But from experience, this is not the case based upon reliability testing done in the licensing research field in which a decision is made regarding regulatory compliance with a specific rule or regulation and then that is verified by a second observer who generally is considered the measurement standard.

Disagreements raise concerns in general, but the disagreements are of two types: false positives and false negatives. A false positive is when a decision is made that a rule/regulation is out of compliance when it is in compliance. Not a good thing but its twin disagreement is worse where with false negatives it is decided that a rule/regulation is in compliance when it is out of compliance. False negatives need to be avoided because they

3The Uncertainty-Certainty Matrix2i Download





Full versus Substantial Regulatory Compliance

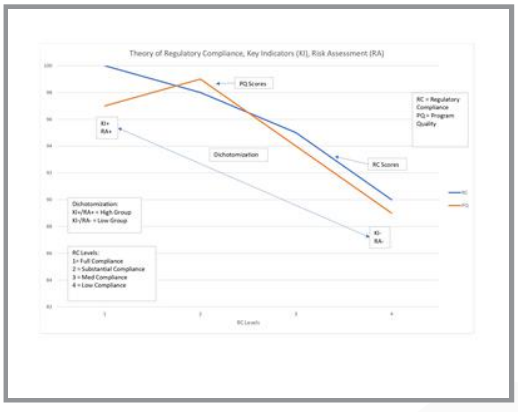
Friday, December 22, 2023

Full versus Substantial Regulatory Compliance1
Download

Theory of Regulatory Compliance, Key Indicators, Risk Assessment an...

Sunday, December 24, 2023

Here is a graphic that captures the relationship of the Theory of Regulatory Compliance, Key Indicators, Risk Assessment, and the dichotomization of licensing data (all these topics have been discussed at great length in the RIKINotes Blog over the past year):



A picture is worth a 1000 words, but in the above case, I am sure a couple of words of explanation would be helpful for those who are left hemisphere dominated rather than right hemisphere dominated as I am. Here are the essential elements of the above graphic.

RA = Risk Assessment rules insures that all the high risk rules are in compliance. This is non-negotiable, all of them are in place for any type of inspection review: full, comprehensive and/or abbreviated. KI = Key Indicators are a bit more flexible because it is based upon probabilities and the predictor rules are generally not as heavily weighted as is the case with risk assessment rules.

The bottom line is that regulatory compliance is important in ensuring that clients are safe and healthy. However, the relationship with quality is a bit more complex based upon the Theory of Regulatory Compliance. There is not the same relationship to program quality as there is to health & safety. Substantial compliance appears to be more effective in determining overall program quality rather than full regulatory compliance with all rules. That is depicted in the curvilinear relationship between Regulatory Compliance (RC) and Program Quality (PQ) as one moves along the RC Levels (1 – 4 = Full – Low Compliance).

And finally, data dichotomization helps to eliminate false negatives and decrease the impact of false positives when taken to the extremes (moving from a 25/50/25 model to 5/90/5 model in distinguishing between high and low regulatory compliance (KI+/RA+ & KI-/RA-)). The rules will not change usually but their phi coefficients will increase significantly. Data dichotomization is not generally recommended but with the extreme skewness in licensing data it is warranted and fits with the measurement of licensing data at the nominal level as well as the theoretical structure of the data distribution based upon full and substantial levels of regulatory compliance being the predominant number of programs. There generally are far fewer programs at a medium or low level of

regulatory compliance.

The above graphic helps to summarize several concepts related to differential monitoring and the theory of regulatory compliance. It is suggested that previous RIKINotes posts and the RIKI Selected Publications webpage be consulted for a more detailed rendition of what is presented in this post. The technical research notes on the RIKI Selected Publications provide a more in-depth analysis of the above concepts.

2 x 2 Uncertainty-Certainty Matrices Threshold Models for Regulator...

Friday, December 29, 2023

-Threshold Models for 2 x 2 UCM Download

Threshold Models for 2 x 2 Uncertainty-Certainty Matrices

Richard Fiene PhD

Research Institute for Key Indicators/Penn State University

December 2023

This abstract will provide the SPSS outputs for the phi coefficients in utilizing various threshold models for the 2 x 2 Uncertainty-Certainty Matrices for determining key indicators. It is intended for regulatory scientists and licensing researchers who will be more interested in this statistical presentation. It follows the two previous RIKINotes posts on the UCM Matrix and the graphic representation of the theory of regulatory compliance, key indicators, and risk assessments. In fact, these three posts should be read together to get the full understanding of this modeling technique.

The abstract presents three threshold models: 25/50/25, 10/80/10, and 5/90/5. These models are utilized to determine the high and low regulatory compliance groups that will be used to sort and select the respective key indicators for a jurisdiction's set of rules/regulations. These models are based upon the dichotomization statistical technique which is utilized given the nature of the regulatory compliance data being so severely skewed in a positive fashion towards full compliance with all rules.

It will be noticed in all the models that the key indicators do not change, they are stable which is not surprising since licensing key indicators do not change a great deal over time nor across jurisdictions. The original 13 key indicators that were identified in 2002 in the ASPE publication Thirteen Health and Safety Key Indicators has not changed a great deal over the past two decades. What does change is the significance of the phi coefficients in becoming more statistically significant as we increase the dichotomization of the model in moving from 25/50/25 --> 5/90/5 threshold models in order to eliminate false negatives and decrease false positives. However, with that said, there are limits to this dichotomization in which in some cases phi coefficients may drop off because of the cell sizes in the 2 x 2 UCM Matrix becoming smaller.

The threshold models are included as three attachments to this abstract with the phi coefficients for each rule. These data are taken from a western US state but they clearly represent what is found in any jurisdiction when doing this type of analysis related to the threshold models.

Regulatory Compliance Scales and Program Monitoring Systems: Altern...

Monday, January 01, 2024

RCS + PMS Download

Regulatory Compliance Scales and Instrument Based Program Monitoring, Differential Monitoring, and Integrative Monitoring Systems: Alternative Paradigms for Licensing Decision Making

Richard Fiene PhD

Research Institute for Key Indicators/Penn State University

January 2024

I have written about this topic in posting to this platform but have also posted a great deal on the Medium Platform regarding the importance of the Theory of Regulatory Compliance and bringing substantial compliance to the fore front of regulatory science. This abstract and technical research note will build upon these previous assertions and expand them into some practical applications that can be utilized within regulatory science as it relates to licensing measurement, regulatory compliance scaling, and monitoring systems paradigms.

Regulatory Compliance has been always approached as an all or none phenomenon, whether a rule is in compliance, or it is not. There is no in-between or shades of gray or partial compliance. This worked when the prevailing paradigm was that full regulatory compliance and program quality were a linear relationship. This was the assumption but not empirically verified until the later 1970's-1980's. When this assumption was put to an empirical test, it did not hold up but rather a curvilinear relationship between regulatory compliance and program quality was discovered. This upset the prevailing paradigm and suggested we needed a new approach to addressing the relationship between regulatory compliance and program quality.

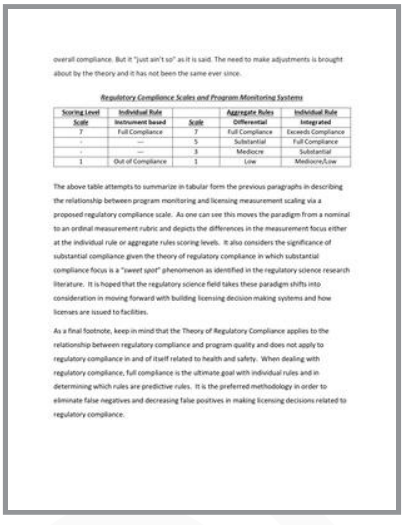
It became clear after these findings in the 1970's-80's and then in the 2010's when replication studies were completed that substantial regulatory compliance could not be ignored based upon this new theory of regulatory compliance in which substantial compliance acted as a "sweet spot" of best outcomes or results when comparing regulatory compliance and program quality scores. The nominal metric needed to be revised and more of an ordinal metric was to

be its replacement. Because now it wasn't just being in or out of compliance, but it mattered which rules were in or out of compliance and how they were distributed. This revised application involved aggregate rules and does not apply to individual rule scoring. The studies completed between 1970 and 2010 involved aggregate rules and not individual rules. To determine if the nominal to ordinal metric needs to be revised still needs empirical data to back this change.

The introduction of substantial compliance into the regulatory compliance measurement strategy moved the field from an instrument-based program monitoring into a more differential monitoring approach. With differential monitoring this approach considered which rules and how often reviews should be done. A Regulatory Compliance Scale was also proposed to take into account the importance of substantial compliance. As this Regulatory Compliance Scale has evolved it needs further revision in which program quality can be infused into the decision making related to individual rules. Remember that the original studies were concerned about rules in the aggregate and not individual rules. It has now become apparent that in dealing with the infusion of quality into rule formulation, a return to the individual rule approach makes the most sense.

The next iteration of the Regulatory Compliance Scale will contain the following categories: Exceeding full compliance, Full compliance, Substantial compliance, and Mediocre compliance to adjust for the infusion of the quality element. This differs slightly from the original aggregate rule Regulatory Compliance Scale where the categories were Full compliance, Substantial compliance, Mediocre compliance and Low compliance where only licensing health and safety elements were considered (see the Table below which depicts the regulatory compliance scales and program monitoring systems side by side).

Without the Theory of Regulatory Compliance, differential and integrative monitoring would not be needed because regulatory compliance would have had a linear relationship with program quality and full compliance would have been the ultimate goal. There would have been no need for targeted rule enforcement or reviews because all rules would have had an equal weight when it came to protecting clients and any individual rule would have predicted



overall compliance. But it "just ain't so" as it is said. The need to make adjustments is brought about by the theory and it has not been the same ever since.

Regulatory Compliance Scales and Program Monitoring Systems

Scoring Level	Individual Rule		Aggregate Rules	Individual Rule
Scale	Instrument based	*Scale*	Differential	Integrated
7	Full Compliance	7	Full Compliance	Exceeds Compliance
.	---	5	Substantial	Full Compliance
.	---	3	Mediocre	Substantial
1	Out of Compliance	1	Low	Mediocre/Low

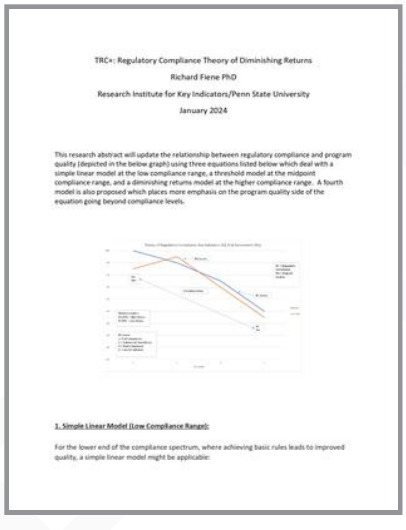
The above table attempts to summarize in tabular form the previous paragraphs in describing the relationship between program monitoring and licensing measurement scaling via a proposed regulatory compliance scale. As one can see this moves the paradigm from a nominal to an ordinal measurement rubric and depicts the differences in the measurement focus either at the individual rule or aggregate rules scoring levels. It also considers the significance of substantial compliance given the theory of regulatory compliance in which substantial compliance focus is a "sweet spot" phenomenon as identified in the regulatory science research literature. It is hoped that the regulatory science field takes these paradigm shifts into consideration in moving forward with building licensing decision making systems and how licenses are issued to facilities.

As a final footnote, keep in mind that the Theory of Regulatory Compliance applies to the relationship between regulatory compliance and program quality and does not apply to regulatory compliance in and of itself related to health and safety. When dealing with regulatory compliance, full compliance is the ultimate goal with individual rules and in determining which rules are predictive rules. It is the preferred methodology in order to eliminate false negatives and decreasing false positives in making licensing decisions related to regulatory compliance.

TRC+: Regulatory Compliance Theory of Diminishing Returns

Tuesday, January 02, 2024

TRC+ Graphic and Equation Download



TRC+: Regulatory Compliance Theory of Diminishing Returns

Richard Fiene PhD

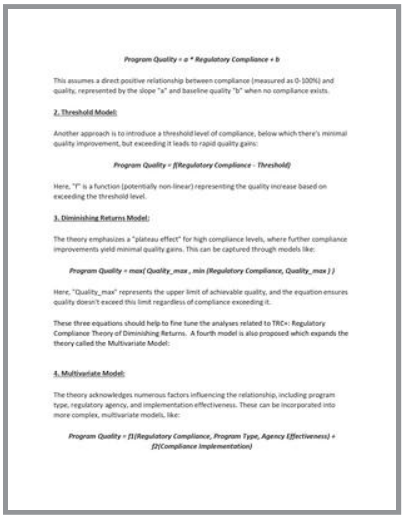
Research Institute for Key Indicators/Penn State University

January 2024

This research abstract will update the relationship between regulatory compliance and program quality (depicted in the below graph) using three equations listed below which deal with a simple linear model at the low compliance range, a threshold model at the midpoint compliance range, and a diminishing returns model at the higher compliance range. A fourth model is also proposed which places more emphasis on the program quality side of the equation going beyond compliance levels.

1. Simple Linear Model (Low Compliance Range):

For the lower end of the compliance spectrum, where achieving basic rules leads to improved quality, a simple linear model might be applicable:



*Program Quality = a * Regulatory Compliance + b*

This assumes a direct positive relationship between compliance (measured as 0-100%) and quality, represented by the slope "a" and baseline quality "b" when no compliance exists.

2. Threshold Model:

Another approach is to introduce a threshold level of compliance, below which there's minimal quality improvement, but exceeding it leads to rapid quality gains:

Program Quality = f(Regulatory Compliance - Threshold)

Here, "f" is a function (potentially non-linear) representing the quality increase based on exceeding the threshold level.

3. Diminishing Returns Model:

The theory emphasizes a "plateau effect" for high compliance levels, where further compliance improvements yield minimal quality gains. This can be captured through models like:

Program Quality = max(Quality_max , min (Regulatory Compliance, Quality_max))

Here, "Quality_max" represents the upper limit of achievable quality, and the equation ensures quality doesn't exceed this limit regardless of compliance exceeding it.

These three equations should help to fine tune the analyses related to TRC+: Regulatory Compliance Theory of Diminishing Returns. A fourth model is also proposed which expands the theory called the Multivariate Model:

4. Multivariate Model:

The theory acknowledges numerous factors influencing the relationship, including program type, regulatory agency, and implementation effectiveness. These can be incorporated into more complex, multivariate models, like:

Program Quality = f1(Regulatory Compliance, Program Type, Agency Effectiveness) + f2(Compliance Implementation)

Theory of Regulatory Compliance: Empirical Evidence for Ceiling Eff...

Saturday, January 13, 2024

The Theory of Regulatory Compliance is finding the “right” rules that govern outcomes for clients. It is not about more or less rules, that is a waste of time. The theory clearly demonstrates that by employing a key indicator risk assessments methodology it is a relatively straightforward process in finding the rules that protect clients and predict overall regulatory compliance and quality services.

As of this writing, it is the only regulatory compliance theory that has such a solid empirical base with multiple research studies which clearly demonstrate this relationship between regulatory compliance and quality of services. The theory has over the past forty years produced “ceiling effects”, “diminishing returns”, and the “sweet spot phenomenon” in the results utilizing the statistical methodologies which spin off from it.

Please keep in mind that when the theory emphasizes the importance of substantial regulatory compliance, it was not diminishing the importance of full 100% regulatory compliance. What it was doing was demonstrating that substantial regulatory compliance was equally as important as full regulatory compliance and should be considered in making licensing decisions. Full 100% regulatory compliance is still critical in protecting clients but it will not get you fully to quality services. That is where an infusion of quality needs to be included in rules and regulations.

This above thinking has led to a balance of differential monitoring and integrated monitoring of human services facilities. Differential monitoring deals with focused inspections based upon the key indicator risk assessments statistical methodologies while integrated monitoring is the balancing of regulatory compliance with key quality indicators. From a program monitoring point of view, it is the best of both worlds when it comes to designing an effective and efficient system.

The theory has also led us to reconsider how we measure licensing and regulatory compliance data in helping us move from a nominal measurement strategy to one that is more at an ordinal measurement level. This new ordinal measurement is call the

“Regulatory Compliance Scale” and is based upon a more theoretically sound metric which follows the theory of Full, Substantial, Mediocre regulatory compliance levels. This new scale has also been empirically demonstrated and clearly shows it is superior to the standard, old paradigm where regulatory compliance is measured at a nominal level utilizing violation frequency data.

And lastly, the theory of regulatory compliance has clearly helped to bring to light an approach to eliminate false negatives and reduce false positives in our decision making regarding rules as well as licensing decision making. This last result will have a profound impact on random clinical trials. This result and all the results above can be found in research studies and publications on the following research institute data laboratory website: https://rikinstitute.com

The Theory of Regulatory Compliance Fiene Download

Regulatory Compliance Scale Trials and Tribulations

Saturday, January 20, 2024

There have been several posts in these RIKNotes dealing with the Regulatory Compliance Scale (RCS) that was proposed as an alternative measurement strategy to regulatory compliance violation frequency data where the number of rule/regulation violations are counted. The RCS has recently been tested in validation studies to determine the proper thresholds for its scaling. The attached report provides the methodology used and the results of these validation studies conducted in the USA and Canada. A couple of footnotes which I noticed after my initial posting: The Fibonacci Sequencing is a modification of the original, I took the liberty to deal with the extremes of the sequence in order to increase the variance in the scaling which is a predominant problem with regulatory compliance data. The second footnote is that the RCS based upon empirical data as well as anecdotal reports is on an equal par with regulatory compliance violation frequency count data (RCV) but the only way to test the RCS is for licensing agencies to set up these types of analyses comparing them side by side and then determining which is better to use. I am not suggesting that the RCS be used in place of RCV. The data from this report just does not support doing that. I would also ask licensing agencies to send me the results of their studies so that I can add those data to the ever expanding international database being maintained at the Research Institute for Key Indicators Data Laboratory at Penn State University. Please just send any empirical results to rfiene@rikinstitute.com.

The Regulatory Compliance Scale (RCS) was introduced several years ago and has been used in a couple of validation studies for differential monitoring and regulatory compliance’s ceiling effect phenomenon. RCS buckets or thresholds were statistically generated based upon these studies, but it is time to validate those buckets and thresholds to determine if they are really the best model in creating a regulatory compliance scale. Since proposing the RCS, there has been a great deal of interest from jurisdictions in particular from Asian and African nations. Additional statistically based trials were conducted, and this brief report is the compilation of those trials over the past year.

The data used are from several jurisdictions that are part of the international database

maintained at the Research Institute for Key Indicators Data Laboratory at Penn State University focusing on program quality scores and rule violation frequency data. These data from the respective databases were recoded into various thresholds to determine the best model. The jurisdictions were all licensing agencies in the US and Canada geographically dispersed where both regulatory compliance and program quality data was obtained from a sample of early care and education programs.

METHODOLOGY

The following methodology was used starting with the original RCS buckets/thresholds of Full, Substantial, Medium, and Low regulatory compliance:

Table 1: RCS Models used for analyses

RCSModels*Original12345Full* 100 100 100 100 100 100 **Scaling***Substantial* 99-98 99-97 99-97 99-98 99-98 99-97 ***Medium*** 97-90 96-90 96-93 97-95 97-85 96-85 ***Low*** 89> 89> 92> 94> 84> 84>

Five alternate models were used to compare the results to the original RCS. The numbers indicate the number of violations subtract from a perfect score of 100. Full regulatory compliance indicates no violations and a score of 100 on the scale. The next bucket of 99-98 indicates that there were 1 or 2 regulatory compliance violations which resulted in a 99-98 score on the scale. This logic continues with each of the models.

The scale score was determined in the following manner: Full Regulatory Compliance = 7; Substantial Regulatory Compliance = 5; Medium Regulatory Compliance = 3; and Low Regulatory Compliance =1. This rubric is how the original RCS scaling was done on a Likert type scale similar to other ECE program quality scales, such as the Environmental Rating Scales.

RESULTS

The following results are correlations amongst the respective RCS Models from Table 1 compared to the respective jurisdictions program quality tool (Quality1-3): ERS or CLASS Tools.

Table 2: RCS Model Results compared to Quality Scales

RCS resultsModelsQuality1Quality2Quality3Jurisdiction1RCS0.26*.39*.39* RCS3 .21 .32* .33* RCS5 .20 .36* .33* **Jurisdiction2RCS0.76**.46**—** RCS3 .12 -.07 — RCS5 .18 -.02 — RCSF1 .55** .29* — RCSF2 .63** .34 — **Jurisdiction3** RCS0 .19 .18 .16 **RCS3.21.21.15** RCS5 .18 .16 .07 RCSF1 .17 .17 .10 RCSF2 .18 .18 .19 **Jurisdiction4** RCS0 .24* — — RCS3 .28* — — **RCS5.30*——** RCSF1 .21 — — RCSF2 .29* — — **Jurisdiction5** RCS0 .06 -.02 .07 RCS3 .06 -.01 .05 **RCS5.08.00.09** RCSF1 .00 -.03 .05 RCSF2 .05 -.03 .05

*Statistically significant .05 level;

**Statistically significant .01 level.

In the above table starting under Jurisdiction2, two new models were introduced based upon the Fibonacci Sequence (Fibonacci1 = RCSF1; Fibonacci2 = RCSF2) and their

model structure is in the following Table 3. The reason for doing this is that the Fibonacci Sequence introduces additional variation into the scaling process.

Table 3: RCS Fibonacci Models

RCS FibonacciModels*OriginalFibonacci1Fibonacci2Full* 100 100 100 **Scaling***Substantial* 99-98 40 90 ***Medium*** 97-90 20 20 ***Low*** 89> 13 13

DISCUSSION

Based upon the above results, it appears that the original RCS model proposed in 2021 is still the best model to be used, although the Fibonacci Sequence model is a close second in some of the jurisdictions. This model will need further exploration in determining its efficacy as a replacement or enhancement to the original RCS Model.

The bottom line is that the original RCS Model is as good as any and no other model is consistently better than all the rest. The RCS Model does have a slight edge over Regulatory Compliance Violation RCV frequency counts. So, the recommendation would be for licensing agencies to think in terms of using this new scaling technique in one of its model formats.

I have updated the attached paper with appendices dealing with data distributions and basic descriptives that licensing researchers and regulatory scientists may find interesting and appealing in considering this particular approach.

RCS TT Download

Regulatory Compliance Violation Data, Regulatory Compliance Scale D...

Wednesday, January 24, 2024

Attached is a research abstract which is geared more for licensing researchers and regulatory scientists who are responsible for analyzing regulatory compliance data and doing studies related to overall compliance with rules and regulations and program quality. This abstract provides an overview of descriptive statistics, correlational, and ANOVA statistics that researchers and scientists may find interesting in their own studies related to the special considerations to be undertaken when doing regulatory compliance studies.

There are several tables and graphs that clearly depict the ceiling effect and the diminishing returns effect which is characteristic of regulatory compliance data when compared to program quality data. But there are examples of just the general descriptive nature of the data which might be helpful to researchers and scientists in thinking about how best to design their studies. I am continuing a deep dive into the regulatory compliance data sets to determine what other parameters and trends exist in the respective databases in the international early childhood program quality improvement and indicator model maintained at the Research Institute for Key Indicators Data Laboratory/Penn State University. I will share results as I have them in subsequent posts on this RIKINotes Blog.

As one will see, the use of a regulatory compliance scaling approach has several advantages when compared to the more direct approach of a regulatory compliance violation data distribution. Both from a visual display in which differences are more clearly articulated in various buckets of compliance, such as, fully compliant, substantially compliant, medium compliant, and low compliant; and from an analytical frame where the scaling appears to enhance certain statistical analyses over a straight frequency count of violations. For example, it appears to level out some of the skewness in the overall regulatory compliance data distribution.

The other advantage of using a regulatory compliance scaling approach is that it is a bit more intuitive and seems to fit with the regulatory compliance research literature when it comes to being in full, substantial or mediocre compliance. It just makes sense when licensors think about it and talk about it, this is the terminology that is used in discussions. The other advantage is in the scale itself. It matches with other Likert scales that are presently used in the field, such as the Environmental Rating Scales with a 1-7 scale. The regulatory compliance violation data where a zero (0) is considered a perfect score is just counter-intuitive. You get around this by subtracting the number of violations from a perfect score of 100 but that's an extra step to take in your measurement scheme. A Likert scale from 1-7 with 7 being equivalent to full 100% regulatory compliance and 1 being equivalent to low regulatory compliance just works better from an analytical framework.

I have struggled with the lack of variance and the severe skewness in regulatory compliance data over the years. Using a regulatory compliance scaling approach as outlined in this abstract may help us to overcome some of these shortcomings. Weighting of rules and regulations has been proposed and used by a number of state licensing agencies and this has worked well at the individual rule differentiation level but it has not really been employed at the aggregate rule level. A regulatory compliance scaling approach may help to enhance the weighting methodology as one moves from an individual rule to an aggregate rule format. I encourage licensing researchers and regulatory scientists to entertain exploring the use of this scaling technique as they more forward in their research studies on regulatory compliance.

Regulatory Compliance, Regulatory Compliance Scale, and Program Quality Data Distributions

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February 2024

This research abstract will depict the differences in regulatory compliance violation (RSV) data, regulatory compliance scale (RCS) data, and program quality (PQ) data distributions. This is an important distinction amongst the three data sets to determine how best to make licensing decisions. A series of previous research abstracts and technical research notes will be compared with the latest research on the newly proposed regulatory compliance scales (RCS).

The 2018 technical research note provides descriptive statistics for regulatory compliance and program quality data. It clearly demonstrates how the two data sets are very different from each other and the issues for measurement when it comes to regulatory compliance data.

The 2019 technical research note provides basic characteristics of the data distributions for many of the databases in the RIKI/PSU Early Childhood Program Quality Improvement and Indicator Model's international Database.

The 2024 research abstract presents the regulatory compliance scale and its relationship to program quality scores and regulatory compliance violation data. In this abstract, several RCS models are introduced in which various thresholds are used in the RSV data in determining the RCS levels. What is clear from the abstract is that the RCS models provide a clearer picture of the overall data distribution over the use of the RSV data display. This is graphically displayed in the abstract.

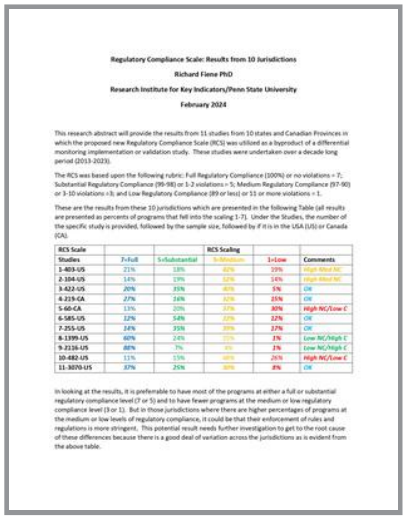
The three papers show the progression made over time in attempting to better analyze regulatory compliance data distributions. The major issue with RSV data is that the data distribution is severely skewed with the majority of the scores being at the full or substantial regulatory compliance levels. This is not the case with PQ data distributions which are more normally distributed. The RCS data distributions help to smooth out the skewness to a certain degree in moving the RSV nominally measured data to an ordinally measured data distribution. This helps in making the data more understandable, for example, the one thing that jumps out is the ceiling effect in moving from substantial to full regulatory compliance which is not as clear in the RSV data distribution.

The three papers follow here:

–RCV RCS PQ enhanced Desc plots Download

Regulatory Compliance Scale: Results from 11 Studies in 10 States a...

Thursday, January 25, 2024



Regulatory Compliance Scale: Results from 10 Jurisdictions

Richard Fiene PhD

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February 2024

This research abstract will provide the results from 11 studies from 10 states and Canadian Provinces in which the proposed new Regulatory Compliance Scale (RCS) was utilized as a byproduct of a differential monitoring implementation or validation study. These studies were undertaken over a decade long period (2013-2023).

The RCS was based upon the following rubric: Full Regulatory Compliance (100%) or no violations = 7; Substantial Regulatory Compliance (99-98) or 1-2 violations = 5; Medium Regulatory Compliance (97-90) or 3-10 violations =3; and Low Regulatory Compliance (89 or less) or 11 or more violations = 1.

These are the results from these 10 jurisdictions which are presented in the following Table (all results are presented as percents of programs that fell into the scaling 1-7). Under the Studies, the number of the specific study is provided, followed by the sample size, followed by if it is in the USA (US) or Canada (CA).

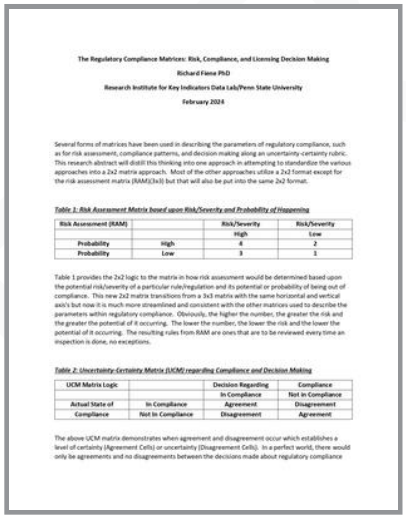
RCS Scale			RCS Scaling		
Studies	7=Full	5=Substantial	3=Medium	1=Low	Comments
1-403-US	21%	18%	82%	19%	High Risk NC
2-104-US	14%	19%	52%	14%	High Risk NC
3-422-US	20%	35%	45%	5%	OK
4-219-CA	27%	24%	32%	25%	OK
5-60-CA	13%	20%	37%	30%	High NC/Low C
6-585-US	12%	54%	33%	22%	OK
7-255-US	24%	35%	39%	27%	OK
8-1399-US	60%	24%	15%	1%	Low NC/High C
9-2116-US	88%	7%	4%	1%	Low NC/High C
10-482-US	11%	15%	48%	26%	High NC/Low C
11-3070-US	37%	25%	30%	8%	OK

In looking at the results, it is preferrable to have most of the programs at either a full or substantial regulatory compliance level (7 or 5) and to have fewer programs at the medium or low regulatory compliance level (3 or 1). But in those jurisdictions where there are higher percentages of programs at the medium or low levels of regulatory compliance, it could be that their enforcement of rules and regulations is more stringent. This potential result needs further investigation to get to the root cause of these differences because there is a good deal of variation across the jurisdictions as is evident from the above table.

RCS10a Download

The Regulatory Compliance Matrices: Risk, Compliance, and Licensing...

Saturday, January 27, 2024



The Regulatory Compliance Matrices: Risk, Compliance, and Licensing Decision Making

Richard Fiene PhD

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February 2024

Several forms of matrices have been used in describing the parameters of regulatory compliance, such as for risk assessment, compliance patterns, and decision making along an uncertainty-certainty rubric. This research abstract will distill this thinking into one approach in attempting to standardize the various approaches into a 2x2 matrix approach. Most of the other approaches utilize a 2x2 format except for the risk assessment matrix (RAM)(3x3) but that will also be put into the same 2x2 format.

Table 1: Risk Assessment Matrix based upon Risk/Severity and Probability of Happening

Risk Assessment (RAM)		Risk/Severity	Risk/Severity
		High	Low
Probability	High	4	2
Probability	Low	3	1

Table 1 provides the 2x2 logic to the matrix in how risk assessment would be determined based upon the potential risk/severity of a particular rule/regulation and its potential or probability of being out of compliance. This new 2x2 matrix transitions from a 3x3 matrix with the same horizontal and vertical axis's but now it is much more streamlined and consistent with the other matrices used to describe the parameters within regulatory compliance. Obviously, the higher the number, the greater the risk and the greater the potential of it occurring. The lower the number, the lower the risk and the lower the potential of it occurring. The resulting rules from RAM are ones that are to be reviewed every time an inspection is done, no exceptions.

Table 2: Uncertainty-Certainty Matrix (UCM) regarding Compliance and Decision Making

UCM Matrix Logic		Decision Regarding	Compliance
		In Compliance	Not in Compliance
Actual State of	In Compliance	Agreement	Disagreement
Compliance	Not In Compliance	Disagreement	Agreement

The above UCM matrix demonstrates when agreement and disagreement occur which establishes a level of certainty (Agreement Cells) or uncertainty (Disagreement Cells). In a perfect world, there would only be agreements and no disagreements between the decisions made about regulatory compliance

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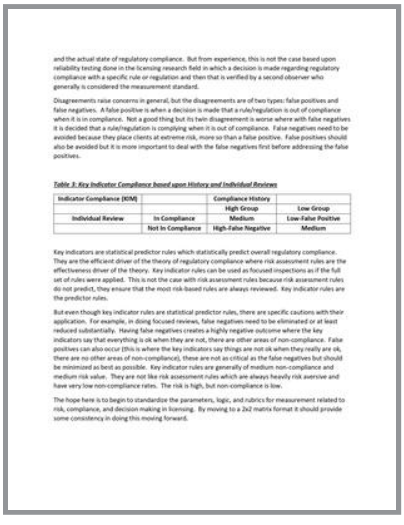


and the actual state of regulatory compliance. But from experience, this is not the case based upon reliability testing done in the licensing research field in which a decision is made regarding regulatory compliance with a specific rule or regulation and then that is verified by a second observer who generally is considered the measurement standard.

Disagreements raise concerns in general, but the disagreements are of two types: false positives and false negatives. A false positive is when a decision is made that a rule/regulation is out of compliance when it is in compliance. Not a good thing but its twin disagreement is worse where with false negatives it is decided that a rule/regulation is complying when it is out of compliance. False negatives need to be avoided because they place clients at extreme risk, more so than a false positive. False positives should also be avoided but it is more important to deal with the false negatives first before addressing the false positives.

Table 1: Key Indicator Compliance based upon History and Individual Reviews

Indicator Compliance (KIM)		Compliance History	
		High Group	Low Group
Individual Review	In Compliance	Medium	Low-False Positive
	Not In Compliance	High-False Negative	Medium

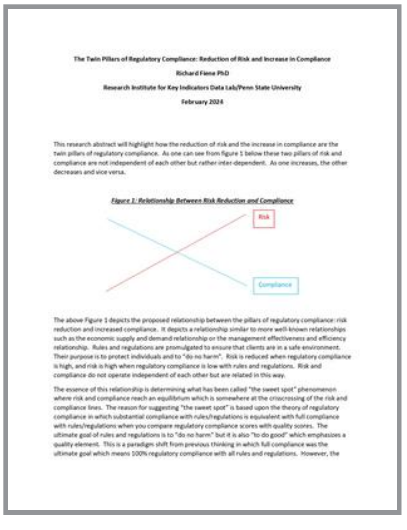
Key indicators are statistical predictor rules which statistically predict overall regulatory compliance. They are the efficient driver of the theory of regulatory compliance where risk assessment rules are the effectiveness driver of the theory. Key indicator rules can be used as focused inspections as if the full set of rules were applied. This is not the case with risk assessment rules because risk assessment rules do not predict, they ensure that the most risk-based rules are always reviewed. Key indicator rules are the predictor rules.

But even though key indicator rules are statistical predictor rules, there are specific cautions with their application. For example, in doing focused reviews, false negatives need to be eliminated or at least reduced substantially. Having false negatives creates a highly negative outcome where the key indicators say that everything is ok when they are not, there are other areas of non-compliance. False positives can also occur (this is where the key indicators say things are not ok when they really are ok, there are no other areas of non-compliance), these are not as critical as the false negatives but should be minimized as best as possible. Key indicator rules are generally of medium non-compliance and medium risk value. They are not like risk assessment rules which are always heavily risk aversive and have very low non-compliance rates. The risk is high, but non-compliance is low.

The hope here is to begin to standardize the parameters, logic, and rubrics for measurement related to risk, compliance, and decision making in licensing. By moving to a 2x2 matrix format it should provide some consistency in doing this moving forward.

The Twin Pillars of Regulatory Compliance: Reduction of Risk and In...

Saturday, January 27, 2024



The Twin Pillars of Regulatory Compliance: Reduction of Risk and Increase in Compliance

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February 2024

This research abstract will highlight how the reduction of risk and the increase in compliance are the twin pillars of regulatory compliance. As one can see from figure 1 below these two pillars of risk and compliance are not independent of each other but rather inter-dependent. As one increases, the other decreases and vice versa.

Figure 1: Relationship Between Risk Reduction and Compliance

The above Figure 1 depicts the proposed relationship between the pillars of regulatory compliance: risk reduction and increased compliance. It depicts a relationship similar to more well-known relationships such as the economic supply and demand relationship or the management effectiveness and efficiency relationship. Rules and regulations are promulgated to ensure that clients are in a safe environment. Their purpose is to protect individuals and to "do no harm". Risk is reduced when regulatory compliance is high, and risk is high when regulatory compliance is low with rules and regulations. Risk and compliance do not operate independent of each other but are related in this way.

The essence of this relationship is determining what has been called "the sweet spot" phenomenon where risk and compliance reach an equilibrium which is somewhere at the crisscrossing of the risk and compliance lines. The reason for suggesting "the sweet spot" is based upon the theory of regulatory compliance in which substantial compliance with rules/regulations is equivalent with full compliance with rules/regulations when you compare regulatory compliance scores with quality scores. The ultimate goal of rules and regulations is to "do no harm" but it is also "to do good" which emphasizes a quality element. This is a paradigm shift from previous thinking in which full compliance was the ultimate goal which means 100% regulatory compliance with all rules and regulations. However, the

Two Pillars of Regulatory Compliance1 (1)
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theory of regulatory compliance just does not support this policy edict. It is more beneficial to also include substantial compliance along with full compliance when making licensing decisions regarding who should be entering respective industries and who should not.

Figure 2 below depicts the theory of regulatory compliance and the relationship between quality and regulatory compliance. It also demonstrates how through data dichotomization; risk assessment and key indicator statistical methodologies can be employed to determine the targeted rules that place clients at greatest risk and those rules that statistically predict overall regulatory compliance. This approach gets us to "the sweet spot" identified in figure 1 where risk and compliance crisscross. Without the theory of regulatory compliance, figure 1 would be dealt with very differently in that high compliance and low risk would be the ultimate goal alone. It still is the ultimate goal but with the additional "sweet spot" which reflects substantial compliance with all rules and regulations.

Figure 2: Theory of Regulatory Compliance

Hopefully, this research abstract helps to further delineate how the intricacies of risk and compliance play out in regulatory compliance. Another way of looking at this is through the vantage point of the regulatory compliance scale in which levels 7 and 5 would be acceptable while levels 3 and 1 would not because compliance would be too low and risk too high. Also, an additional way of looking at this is through the effectiveness and efficiency relationship in which the "sweet spot" represents the balance point between effectiveness and efficiency. Utilizing this "sweet spot" phenomenon is the most cost effective and efficient approach to attaining regulatory compliance. The older paradigm of requiring a "one size fits all" full compliance approach is not as cost effective and efficient.

Theory of Regulatory Compliance Alternate Paradigm

Saturday, January 27, 2024

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