

A Thematic Analysis of Existing Sunrise Provisions: Challenges, Findings, and Best Practices

David C. Benton, PhD, RN, FRCN, FAAN

Chief Executive Officer

National Council of State Boards of Nursing

Alyson S. Brenton, RN, MSN, CNL

RN Test Development Associate II

National Council of State Boards of Nursing

Phyllis Johnson, MSN, RN, FNP-BC

Executive Officer

Mississippi Board of Nursing

Katherine Stansfield, MN, RN

Chief Executive Officer and Registrar

College of Registered Nurses of Manitoba

Peggy Sellers Benson, MSN, RN MSHA, NE-BC

Executive Officer

Alabama Board of Nursing

CONTENTS

OCTOBER 2021 • VOLUME 12 • SUPPLEMENT



*Advancing nursing excellence
for public protection*

Mission

The *Journal of Nursing Regulation* provides a worldwide forum for sharing research, evidence-based practice, and innovative strategies and solutions related to nursing regulation, with the ultimate goal of safeguarding the public. The journal maintains and promotes National Council of State Boards of Nursing's (NCSBN's) values of integrity, accountability, quality, vision, and collaboration in meeting readers' knowledge needs.

Manuscript Information

The *Journal of Nursing Regulation* accepts timely articles that may advance the science of nursing regulation, promote the mission and vision of NCSBN, and enhance communication and collaboration among nurse regulators, educators, practitioners, and the scientific community. Manuscripts must be original and must not have been nor will be submitted elsewhere for publication. See www.journalofnursingregulation.com for author guidelines and manuscript submission information.

Letters to the Editor

Send to Maryann Alexander at malexander@ncsbn.org.

Introduction	S4
Context and Regulatory Impact Assessment	S4
RIA Toolkits and Collation of Best Practices	S5
Methods	S6
Research Approach	S6
Sunrise Review Definition and Scope	S6
Data Sources	S7
Policy Study Length	S7
Thematic Data Analysis	S7
Identifying Best and Promising Practices	S8
Results and Discussion	S8
Summary Reports Regarding U.S. Sunrise Legislation	S8
Sunrise Reports	S8
Policy Study Length	S9
Thematic Analysis	S12
Sunrise Theme	S14
Criteria Subtheme	S14
Processes and Actors Subtheme	S14
Legislative Action Subtheme	S14
Best and Promising Practices	S16
Australia	S16
Canada	S21
New Zealand	S21
United Kingdom	S22
Observations Made From U.S. and International Sunrise Best and Promising Practices	S22
Currency of Guidance	S22
Transparency	S22
Clarity and Accountability	S22
Criteria	S23
Standardization and Comparability	S24
Mobility	S24
Drivers and Solutions	S24
The Power of Larger Data Sets	S24
Precision in Definitions	S25
Optimizing Information Requirements	S25
Transparency and Adding Value	S25
The Search for Consistent and Proportionate Regulatory Decisions	S26
The Need for Explicit, Valid, and Reliable Criteria	S26
Limitations	S27
Conclusions	S27
References	S28
Appendix A	S32
Appendix B	S42

A Thematic Analysis of Existing Sunrise Provisions: Challenges, Findings, and Best Practices

Aims: The purpose of this study was to identify and critically examine the use of sunrise provisions related to the regulation of health professions and to identify how they are applied. As a result, we sought to find examples of best or promising practices. **Methods:** This study is based on a review and systematic examination of existing literature, available legislation, and publicly available jurisdiction websites associated with completed sunrise review reports along with any related guidance. Jurisdictions in the United States, United Kingdom, Canada, New Zealand, and Australia were included. **Results:** A total of 213 reports varying in length from two to 704 pages were analyzed. The study initially identified 51 themes that were later condensed to 40. Most themes were directly relevant to the sunrise review process, though some offered more general perspectives relating to the disciplines' pursuit of regulation to enhance their status. Although best and promising practices were identified in each of the countries included, no jurisdictions applied all practices. Research identified a pressing need to develop a series of metrics that assess harm and facilitate consistent and proportionate regulatory responses to requests for licensure of new disciplines or extending scopes of existing practice. **Conclusion:** While this study focused exclusively on health-related disciplines, the findings point toward the need to conduct further research where the inclusion of the entire data set of reviews of all occupations pursuing statutory regulation is addressed. Such a study may help inform development of criteria mapping between anticipated harms to the public and regulatory response, thus driving consistent implementation of an associated proportionate regulatory-response framework.

Keywords: Sunrise reviews, occupational licensure, scope of practice, regulatory reform, right touch regulation, thematic analysis, legislation, health professions, certification

Introduction

The National Council of State Boards of Nursing (NCSBN) has begun an ambitious endeavor to encourage contemporary approaches to reforming professional regulation. In 2016, NCSBN hosted the *Regulation 2030 Conference* involving nursing and other health-professional regulators from across multiple organizations, countries, and U.S. states, territories, and the District of Columbia (Benton & Alexander, 2017). Several of the ideas identified during the conference led toward the formulation of the objectives underpinning NCSBN's 2020 to 2022 strategic initiatives. The objectives were developed in partnership with NCSBN's membership resulting in a total of 11 objectives between the following four initiatives: (1) promote agile regulatory systems for relevance and responsiveness to change; (2) champion regulatory solutions to address borderless healthcare delivery; (3) expand active engagement and leadership potential of all members; and (4) pioneer competency assessments to support the future of healthcare and the advancement of regulatory excellence (NCSBN, n.d.). The intent was to use a collaborative software platform (Trello) to enable NCSBN members and staff to collaborate asynchronously in cross-functional teams.

The first objective—promoting agile regulatory systems—requires the NCSBN to develop, pilot, and evaluate a regulatory excellence accreditation system using a mixed-method approach. Associated with this objective are a series of sub-goals. This article reports on one sub-goal of analysis of existing U.S. sunrise provisions and their application (the production of sunrise reviews) and contrasting these provisions and reviews with similar processes and outputs in other jurisdictions and countries.

Sunrise review reports, are the outputs generated as a result of sunrise provisions that provide the framework for the analysis of the need to regulate an occupation to protect public health, safety, and welfare. Created in response to the growing number of regulated occupations, sunrise reviews are prepared for state legislatures, which then if proven necessary will go on to introduce and adopt laws that regulate the occupation.

In the context of professional regulation, a sunrise provision in the United States is predominantly a stand-alone legislative act, or occasionally it is a series of clauses within an act, that identifies the steps needed prior to the enactment of legislation that establishes the regulation, associated processes, and required structures for an occupation or profession (Hentze, 2018). In some states, the sunrise review report process is also used prior to consideration of major changes to the powers exercised by the regulatory body or in relation to significant amendments to the scope of practice of the discipline being regulated.

Context and Regulatory Impact Assessment

Sunrise provisions are aligned with the principles of *regulatory impact analysis* or *regulatory impact assessment*, terms that are used interchangeably and often referred to as a *RIA*. Prior to examining the evolution and application of sunrise review provisions, as they relate to professional regulation, it is important to examine what lessons can be learned from the literature on RIAs.

Over the past 20 years, RIAs have emerged as a major tool to ensure regulatory systems are fit for purpose. These systems must strike the right balance between restrictions that may inhibit the delivery of a service and safe provision of the service to a required standard (Organisation for Economic Co-operation and Development [OECD], 1997). Stroňová (2014) characterized the purpose of a RIA as “a tool for increasing evidence-based policy making.” Stroňová (2014) also noted that a RIA is often integrated into decision-making processes across a wide range of domains. Benton et al. (2013a), in their wider analysis of the principles underpinning professional self-regulation, highlighted the diversity of the techniques used and the breadth of sectors and countries where they have been applied. Additionally, many countries have collaborated to define, develop, and implement the RIA process, resulting in the co-creation of recommended guidance by the member states of the OECD (2009). Over the years, various authors who have been proponents of the RIA approach have argued that by providing evidence, more rational decisions can be reached, more effective change pursued, and the quality and benefits of regulation improved (Keynes, 1931; Hahn & Litan, 1997; Mandelkern Group, 2001; Hahn et al., 2000).

Depending on the policy domain, the emphasis of the RIA can vary, but the core elements tend to mirror those identified by the European Commission (2010) in their work on smart regulation, which is summarized in Table 1.

TABLE 1

Synopsis of the Regulatory Impact Analysis Elements Proposed by the European Commission (2010)

Elements	Definition
Purpose	Identification and analysis of the issue(s) or problems(s) in one or more policy areas.
Objectives	Policy objectives are expressed in terms of expected results in a timeframe rather than the explicit statement of how the results will be obtained.
Options	Alternative policy options to achieve the objective(s) will be identified and explored at an early stage in the preparation of proposals. This includes the option of "no policy change," which is then used as the point against which other options can be benchmarked.
Impacts	All relevant positive and negative impacts will be examined and reported on with a specific emphasis on using the least degree of intervention to achieve the desirable results. Impacts should be judged across a wide range of dimensions (e.g., economic, social, political, etc.).
Comparison of options	Following the assessment of the most relevant options, the results should be presented in a clear and transparent manner in the impact assessment report so that stakeholders can offer commentary. The way in which affected parties have been identified and consulted should be described in the report.
Monitoring and evaluation	Once the preferred option has been identified, the arrangements for monitoring and evaluation should be outlined and put in place.

RIA Toolkits and Collation of Best Practices

With the wide-scale use of RIAs and their promotion by many individual governments, the European Union and the OECD have provided many toolkits and resources, as well as collations of best practices, which are available to help support the application of the techniques needed to conduct a RIA. While many of the resources are available as grey literature, several peer-reviewed publications, such as the work by Ballantine and Devonald (2006), have collated lessons from multiple sources in the European Union. Table 2 provides a synopsis of a sample of the resources available.

TABLE 2

Sample of Regulatory Impact Analysis (RIA) Tools and Resources Summary

Author	Title	Synopsis and URL
Australian Government Department of the Prime Minister and Cabinet (2016)	Cost-benefit analysis [Guidance note]	Provides information on how to conduct the cost-effectiveness analysis component of a RIA. https://www.pmc.gov.au/sites/default/files/publications/cosst-benefit-analysis.docx
Commissioner for Better Regulation (2014a)	Hints and tips on preparing a regulatory impact statement (RIS) or a legislative impact assessment (LIA)	Describes processes to identify whether regulation is justified or needed, with only the most efficient forms of regulation being adopted; proposes an adequate level of public consultation in the development of regulatory measures. https://www.vic.gov.au/sites/default/files/2019-10/Hints-and-tips-for-preparing-a-RIS-or-BIA.pdf
Commissioner for Better Regulation (2014b)	Multi-criteria analysis (MCA) [Guidance note]	Provides consistent and clear advice on the use of multi-criteria analysis—a technique that is at the heart of a RIA. https://www.vic.gov.au/sites/default/files/2019-10/Guidance-note-Multi-Criteria-Analysis-MCA.pdf
Commissioner for Better Regulation (2016)	Victorian guide to regulation: A handbook for policy-makers in Victoria	Offers a comprehensive guide to those seeking to conduct and utilize an evidence-based approach to a RIA. https://www.vic.gov.au/sites/default/files/2019-10/Victorian-Guide-to-Regulation.pdf
Department for Communities and Local Government (2009)	Multi-criteria analysis: A manual	Offers a comprehensive manual on the structure and use of multi-criteria analysis in relation to policy reform. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/191506/Mult-crisis_analysis_a_manual.pdf
Department of the Taoiseach (2009)	Revised RIA guidelines: How to conduct a regulatory impact analysis	Provides a comprehensive toolkit to assist and guide the specification and conduct of a RIA including example templates. https://govacc.per.gov.ie/wp-content/uploads/Revised_RIA_Guidelines_June_2009.pdf

Sample of Regulatory Impact Analysis (RIA) Tools and Resources Summary *(continued)*

Author	Title	Synopsis and URL
Department for Business Innovation and Skills (2011)	Impact assessment toolkit: A guide to undertaking an impact assessment (IA) and completing the IA template	Offers a step-by-step guide to conducting a policy impact assessment following the same processes needed to conduct a RIA. https://www.legislationline.org/download/id/3642/file/UK_Impact%20Assessment%20Toolkit_2011.pdf
Jacobs and Associates (2011)	Implementing RIA: Benefits, challenges, and best practices	Report on a workshop on utilizing a RIA to improve transparency and effectiveness in the rulemaking process. http://mddb.apec.org/documents/2011/EC/WKSP2/11_ec_wksp2_006.pdf
New Zealand Institute of Economic Research (2019)	Regulatory management toolkit	In New Zealand, a RIA is known as <i>regulatory management</i> and refers to the systematic appraisal of the impacts of proposed legislative rules and the sustained maintenance of existing laws and regulations. https://think-asia.org/bitstream/handle/11540/11724/nzier_wp_2019-3_regulatory_management.pdf?sequence=1
Obama White House (2011)	Regulatory impact analysis: A primer	Guidance note to accompany the release of Executive Order 13563 setting out guidance on how to conduct a regulatory impact analysis. https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf
Organisation for Economic Co-operation and Development (2020a)	OECD best practice principles for regulatory policy: Regulatory impact assessment	Draws on a wide range of examples from OECD countries that have implemented RIAs, highlighting the various elements and providing best practice exemplars of their application. https://www.oecd-ilibrary.org/sites/7a9638cb-en/index.html?itemId=/content/publication/7a9638cb-en

A RIA is the general framework that underpins sunrise reviews. In some countries, where there are proposals to regulate a new discipline or establish a regulatory body, the term RIA is used to reach a determination regarding whether such a step should be supported. As this approach is widely applied to many sectors, we posit that being familiar with this framework enables professional regulation proponents to present their evidence in a manner more widely understood by legislators. In the United States, the establishment of an occupational regulation process follows the RIA framework and is often referred to as *sunrise reviews*.

Methods

Several analytical reports have sought to document where sunrise reviews are taking place (White House, 2015; Bison, 2020). In some cases, new sunrise legislative powers were introduced, and in others, existing legislation was repealed or the use of the power was suspended. The purpose of this study is to clearly identify where sunrise legislation for health-professional disciplines exists and to curate the publicly accessible reports, identify common themes and how they are applied, as well as document any best and/or promising practices.

For the purposes of this study, a best practice is one that has been used on two or more occasions either within an individual jurisdiction or in multiple jurisdictions resulting in positive intended outcomes. Promising practices are those that appear to deliver the planned outcome but may have weak or single case-study evidence.

Research Approach

This study is based on a review of existing literature and other resources. This approach entails the systematic examination of jurisdiction websites and the associated publicly available sunrise reports, published scholarship on the topic, and any associated recommendations or templates available for jurisdictional guidance sources.

Sunrise Review Definition and Scope

Sunrise review reports analyze the need to regulate an occupation to protect public health, safety, and welfare. Created in response to the growing number of regulated occupations, sunrise reviews are prepared for state legislatures, which adopt laws regarding occupational regulation. For example, a sunrise review can be initiated because of a request either by the profession seeking regulation or from a legislature seeking to improve service quality or increase access to a particular service (Professional Standards Authority, 2018). As a result of the request, evidence is gathered and investigations are conducted prior to considering the establishment or

substantive alteration of a regulatory framework for state certification or licensure of an occupation or profession. This process provides a means to objectively assess the relative advantages and disadvantages of regulating an occupation. The entity conducting the review can vary but is normally either an executive or legislative agency (Council of State Governments, 2020b). In short, the profession or group seeking certification, licensure, or an adjustment to their regime must convince the legislators that consumers of the service will be unduly harmed if the proposed legislation is not adopted and that the benefits outweigh the costs of the regulatory action. Within the past decade, repeated reports have strongly advocated for the minimal level of regulatory intervention necessary to secure the desired reduction of harms and maintain safe services (White House, 2015; Baugus & Bose, 2015; Roth & Ramlow, 2016; Professional Standards Authority, 2018)

It has been noted that professions rather than consumer groups usually seek regulation, and one explanation for this is that practitioners understand the harm associated with professional practice better than the consumers of the service (Kleiner, 2006). This phenomenon is sometimes referred to as the problem of information asymmetry (Stephen & Love, 1999).

Data Sources

To identify the structure and processes followed in conducting sunrise reviews, an extensive search of jurisdictional websites was conducted. Any publicly available documents were downloaded and imported into the NVIVO 12 qualitative analysis software package (QSR International).

Importing retrospective data from digitized reports received from several states presented challenges and required additional processing to convert otherwise unreadable PDF documents into machine accessible formats. Several reports from one of the states had access controls enabled, and without a password, it was not possible to easily convert the files into a readable format. Accordingly, a more labor-intensive manual process was needed to generate a machine-readable version of the report. No limits were placed on the age of the report, but not all jurisdictions had digitized their historic documents.

Sunrise reviews address a wide range of disciplines. Our foci of interest were the application of the method to health-related occupations with direct contact with the recipients of service. We did not restrict our search to just nursing or physicians; instead, we gathered a wide spectrum of health-related sources to facilitate a broader understanding of the frameworks used across jurisdictions. Ideally, such data collection would codify the disciplines against an internationally recognized coding system such as the International Labour Organization's (2008) international standardization of occupations (ISCO-08) or the North American Industry Classification System. Because the intention was to look at the totality of the health professions, such a degree of granularity was not pursued.

In some countries, *sunrise review* is not the terminology used; however, there are other similar processes with a similar intent. In those countries where there is legislation that applies across a range of health disciplines, several clauses relating to the steps needed before other disciplines can be considered for regulation are outlined. Examples include the Regulated Health Professions Act of Manitoba (2009) or as detailed in the Health Practitioner Regulation National Law Act 2009 passed by each of the states and territories in Australia.

Policy Study Length

According to the International Centre for Policy Advocacy (2017), policy studies should be focused and succinct, providing all the essential information needed for policymakers to reach an informed decision. Furthermore, the International Centre for Policy Advocacy (2017) contends such studies should be between 35 to 60 pages long and policy briefings only four to eight pages long. Benton et al. (2020), in their synthesis of best governmental practices, indicate that briefings should ideally be only two pages in length. As noted by Carpenter et al. (2020), there is little research on the functioning of sunrise reviews and hence detailed metrics on performance is not available. Accordingly, one of the variables considered was the length of these reports. Early evaluation of sunrise legislation implementation in the United States showed that some states believed the resource usage associated with the conduct of the review process outweighed the benefits, leading several states, such as North Carolina, to repeal their process. As a result, page length is examined as a proxy for resource usage.

Thematic Data Analysis

Due to the anticipated high volume of data sources (sunrise review reports) and as a means of triangulating emergent themes, both manual and automated approaches to theme identification of the documentary analysis were utilized.

The auto code function of NVIVO 12 (QSR International) identified common themes. Auto coding finds frequently occurring noun and noun clauses and extracts and collates the references into a code database labeled with a thematic classification of the reference material. Through this approach, single sentences or paragraphs may be coded to multiple themes, resulting in the need to manually review them to gain a contextual understanding of the theme and its relationship to other themes. Hence, the overlaps in coding of content provide insights into the relatedness of different themes. These themes were subsequently compared with those

themes that emerged through the manual inductive approach described by Thomas (2006). This process facilitates triangulation of perspectives, which increases the trustworthiness and robustness of the analysis (Elo et al., 2014).

Identifying Best and Promising Practices

To identify best or promising practices, the authors used the guiding principles set out in the OECD (2005) on good regulatory quality and performance. As potential best and promising practices were identified in the sunrise reports or from materials extracted from the various jurisdictional websites, they were documented and critiqued by a small group of regulatory experts (authors of this study). The experts were asked to consider the clarity of the processes being proposed, the level of evidence used to guide the establishment and implementation of the processes, and the ease with which they anticipated that the approach could be replicated in other jurisdictions and/or across regulatory agencies. To this end, a set of criteria were considered—namely, does the practice:

- Address a key responsibility that contributes to public protection
- Facilitate understanding and information provision
- Detail the evidence used to support the action or process
- Offer the potential to be adopted by other jurisdictions.

Any of the authors of this study could nominate a potential best or promising practice that was debated among the group until 67% or more of the group agreed to its inclusion. An agreement of 67% was set because this is the accepted percentage for adoption of a policy change as set out in Robert's Rules of Order (Robert et al, 2020).

Results and Discussion

Summary Reports Regarding U.S. Sunrise Legislation

In recent years, several reports have been written on the use of sunrise legislation in the United States (Table 3). These reports examine both sunrise and sunset legislation as a twin-track approach to reducing unnecessary or overly burdensome regulations. One variable reported is the number of U.S. states that use such approaches, and as can be seen from Table 3, there is disagreement regarding the exact number of states that use the sunrise approach, ranging from 10 to 19 states (Table 3). These documents are generally produced by policy research departments, jurisdiction committees, or administration support staff to the legislatures (Drake, 2019). In addition, libertarian and other groups seeking to reduce overly burdensome regulatory regimes or specialist academics with an interest in social, economic, and workforce impacts of regulatory frameworks frequently contribute to these critiques (Kleiner, 2006, 2015; Grace, 2020).

Not all of the reports provided details of the various states. The most comprehensive, although potentially outdated, listing of states is from the work of Sugano (2002). In that report, the underpinning statutes, laws, and codes were identified for sunrise provisions in Arizona, Colorado, Florida, Georgia, Hawaii, Kansas, Maine, Minnesota, Nebraska, New Mexico, North Carolina, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, and West Virginia. More recent work indicates that fewer states are now conducting sunrise reviews, although specific details of those states are often missing. Nonetheless, information from the Council on Licensure, Enforcement & Regulation offers an updated listing of 12 states (Arizona, Colorado, Florida, Georgia, Hawaii, Maine, Minnesota, Nebraska, Vermont, Virginia, Washington, West Virginia) that have active sunrise review processes (Schmitt, 2018). In addition, the Council on Licensure, Enforcement & Regulation reports that Delaware has an inactive law and both Montana and North Carolina have repealed their statutes (Schmitt, 2018). From this information, it appears that as many as 21 states have had sunrise provision at some point over the past 30 or more years.

Sunrise Reports

Using Google, Yahoo, and Bing search engines, as well as direct queries of state and territory websites, a total of 213 health professions–related sunrise reports were identified from 13 state websites (Arizona, Colorado, Connecticut, Florida, Georgia, Hawaii, Maine, Nebraska, Pennsylvania, Vermont, Virginia, Washington, West Virginia). While Colorado is identified in the literature as leading the way in the passage and implementation of sunrise reviews, copies of reports from the earlier years were not available on their website. Nebraska digitized its reports back to 1985 and Hawaii to 1986. In addition, several similar documents were obtained from Australia, New Zealand, the United Kingdom, and a few Canadian provinces.

Looking at the foci of these reports, it can be noted that over the years and across the jurisdictions considerable work took place in relation to midwives, therapists, counselors, chiropractors, assistant staff, and the expansions of scopes of practice. Of the 213 U.S. reports identified, 73% ($n = 156$) focused on whether an occupation should be licensed or not. The remaining 57 reports (27%) related to requests for alterations to existing scopes of practice.

TABLE 3

Summary Reports Identifying the Number of U.S. States With Sunrise Review Provisions

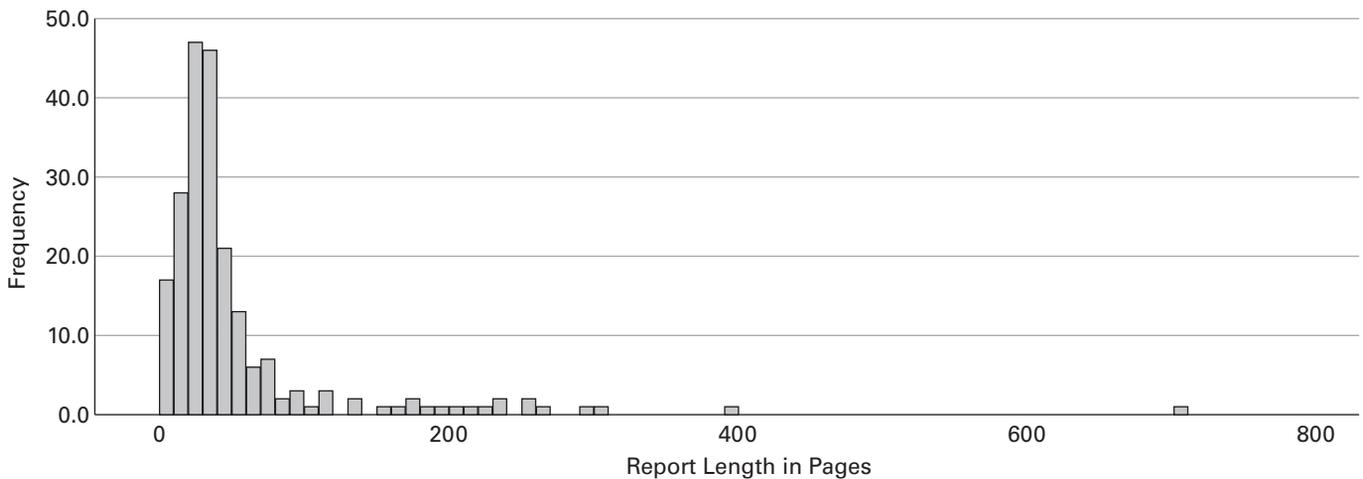
Number of States	Source of Information
14 states have active, formal sunrise processes	Hentze, I. (2018). Improving occupational licensing with sunrise and sunset reviews. <i>LegisBrief</i> , 26(25), 1–2. https://www.ncsl.org/Portals/1/Documents/legisbriefs/2018/July/LB_OccuLic_July2018.pdf
13 states have active sunrise review processes	Gunn, E. (2020). Occupational licenses: Consumer safeguard or job barrier? <i>Wisconsin Examiner</i> . https://wisconsinexaminer.com/2020/01/09/occupational-licenses-consumer-safeguard-or-job-barrier/
15 states have sunrise reviews	Drake, (2019). <i>Review and oversight of occupational licensing laws and rules</i> . Occupational Licensing and Certification Laws Interim Committee. https://legislature.idaho.gov/wp-content/uploads/sessioninfo/2019/interim/190827_olcl_03_DRAKE_SunriseSunset.pdf
12 state summary surveys of sunrise review statutes	School of Medicine Bowen Center for Health Workforce Research & Policy. (2019). <i>National summary of sunrise review statutes</i> . Indiana University School of Medicine. https://scholarworks.iupui.edu/bitstream/handle/1805/21237/National%20Summary%20of%20Sunrise%20Review%20Statutes.pdf?sequence=4&isAllowed=y
10 states have sunrise and sunset reviews	Wisconsin Institute for Law and Liberty. (2017, January 23). <i>WILL applauds Gov. Walker's occupational licensing reform proposal</i> [Press release]. https://www.will-law.org/will-press-release-will-applauds-gov-walkers-occupational-licensing-reform-proposal/
13 states have sunrise reviews	Department of the Treasury Office of Economic Policy, the Council of Economic Advisers, and the Department of Labor. (2015). <i>Occupational licensing: A framework for policymakers</i> . The White House. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_non-embargo.pdf
13 states have sunrise reviews	Roth, C., & Ramlow, E. (2016). <i>Fencing out opportunities: Occupational licensing in the Badger State</i> . Wisconsin Institute for Law & Liberty. https://bloximages.chicago2.vip.townnews.com/lacrossetribune.com/content/tncms/assets/v3/editorial/e/9f/e9f4928d-89ff-5494-8eba-5e530ebf62ad/5830f92463e88.pdf.pdf
14 states have sunrise reviews	Johnson, E. (2016). <i>Occupational licensing and women entrepreneurs in Missouri: A report to the Women's Foundation</i> . Institute of Public Policy, University of Missouri. https://static1.squarespace.com/static/545815dce4b0d75692c341a8/t/582b2125e4fcb54bebfd651e/1479221544420/OL+and+Women+Entrepreneurs+in+MO+-+Final+11.14.16.pdf
19 states were identified as having active or inactive reviews	Sugano, D. (2002). <i>Sunrise reviews: Regulatory structures and criteria</i> . Legislative Reference Bureau. https://lrh.hawaii.gov/wp-content/uploads/2002_SunriseReviews.pdf

Policy Study Length

The 213 reports varied in length from two pages to 704 pages. As the distribution of the number of pages per report is extremely left skewed (Figure 1), a histogram with reports clustered in groups of 10 pages, calculation of measures such as average or standard deviation would have been misleading and thus are not reported. Nevertheless, it can be seen in Figure 1 that 87% ($n = 185$) of the reports contain fewer than 80 pages; however, to obtain more precise information on the dataset, a box and whisker plot was generated (Figure 2).

FIGURE 1

Distribution of the U.S. Sunrise Reports by Length

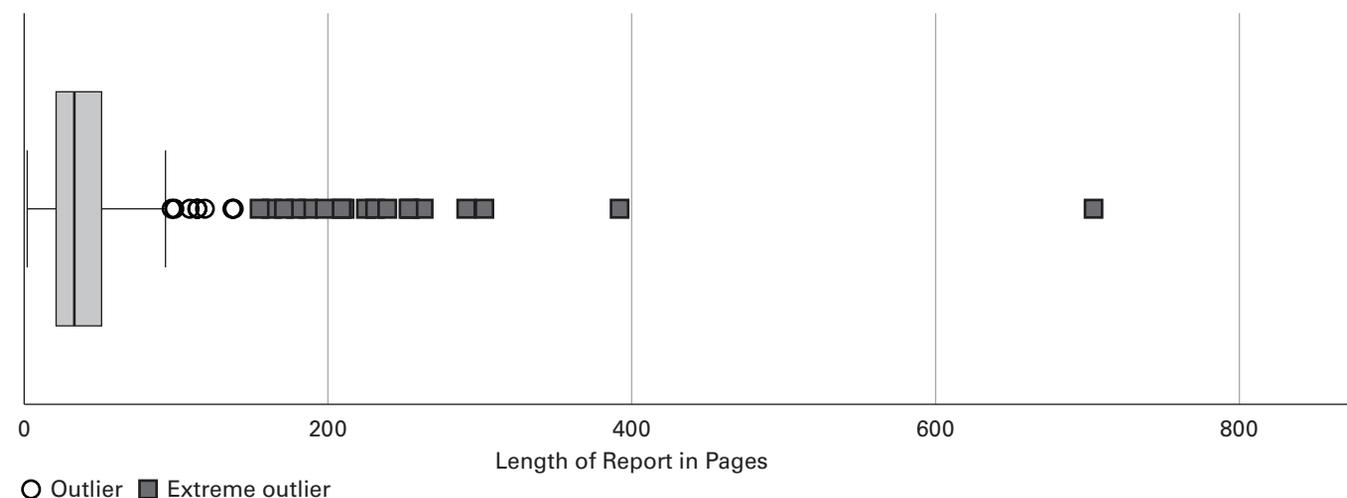


For skewed data, or data that are non-normally distributed, it is better to calculate medians, quartiles, and interquartile ranges (IQRs) so that upper and lower bounds can be identified along with any outliers or extreme outliers (e.g., $Q3 + IQR \times 1.5$ or $Q3 + IQR \times 3$). As noted previously, the range has a minimum value of two pages and maximum of 704 pages. $Q1 = 21$, Median = 33, $Q3 = 51$ and the interquartile range = 30. As a result, the upper limit for outliers (○) is more than 96 and extreme outliers (■) more than 141 pages.

As shown in Figure 2, there are eight outliers and 18 extreme outliers. The eight outlier reports were comprised of one report from Colorado, one from Connecticut, three from Virginia, and three from Washington. The 18 extreme outliers were comprised of one from Arizona, one from Maine, one from Nebraska, six from Virginia, and nine from Washington. Of the 213 reports, 17.4% ($n = 37$) are longer than the maximum recommended page length (60 pages) for an effective policy briefing (International Centre for Policy Advocacy, 2017).

FIGURE 2

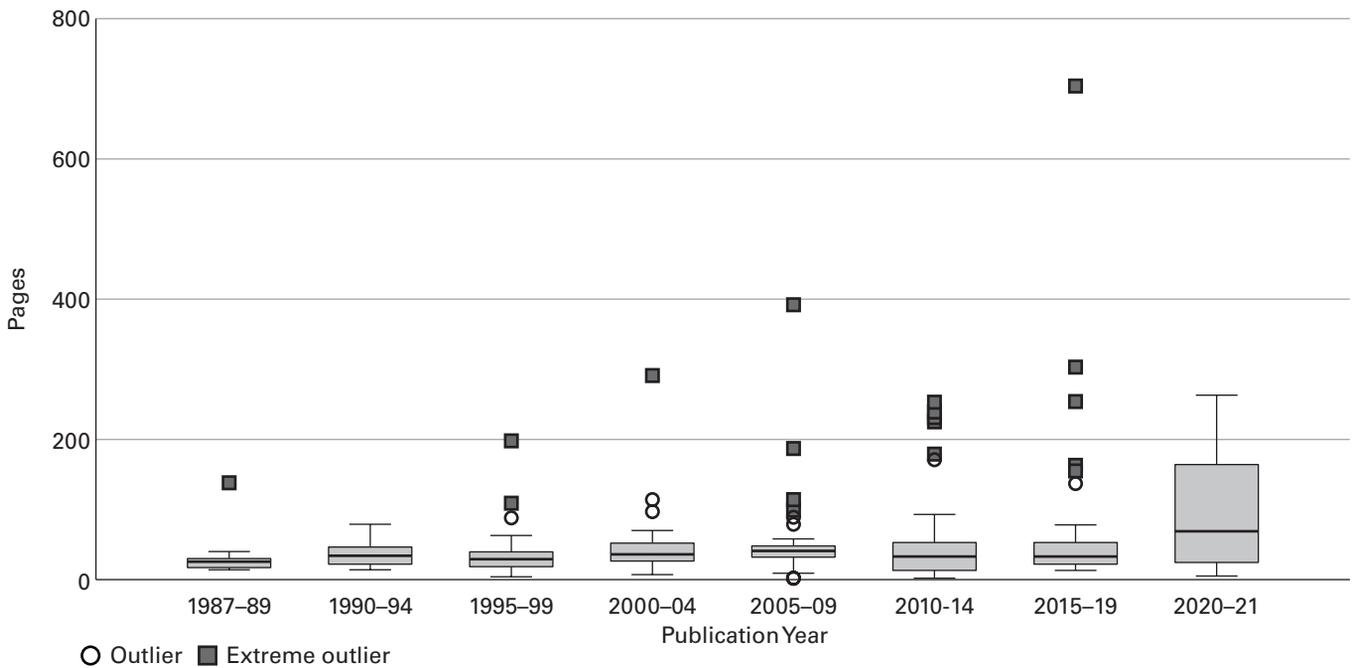
Box and Whisker Plot of Sunrise Report Page Lengths



Examination of the general report structure demonstrates considerable structural variability within and across jurisdictions and is examined in detail later in this article; however, as can be seen from Figure 3, the length of these reports has tended to increase slightly, as evidenced by median values over the years. Also, the widening interquartile range and the locations of outliers and extreme outliers indicate that report length has tended to increase over the years. Hence, the resources needed to produce and review these documents, based on our proxy measure, may also be increasing.

FIGURE 3

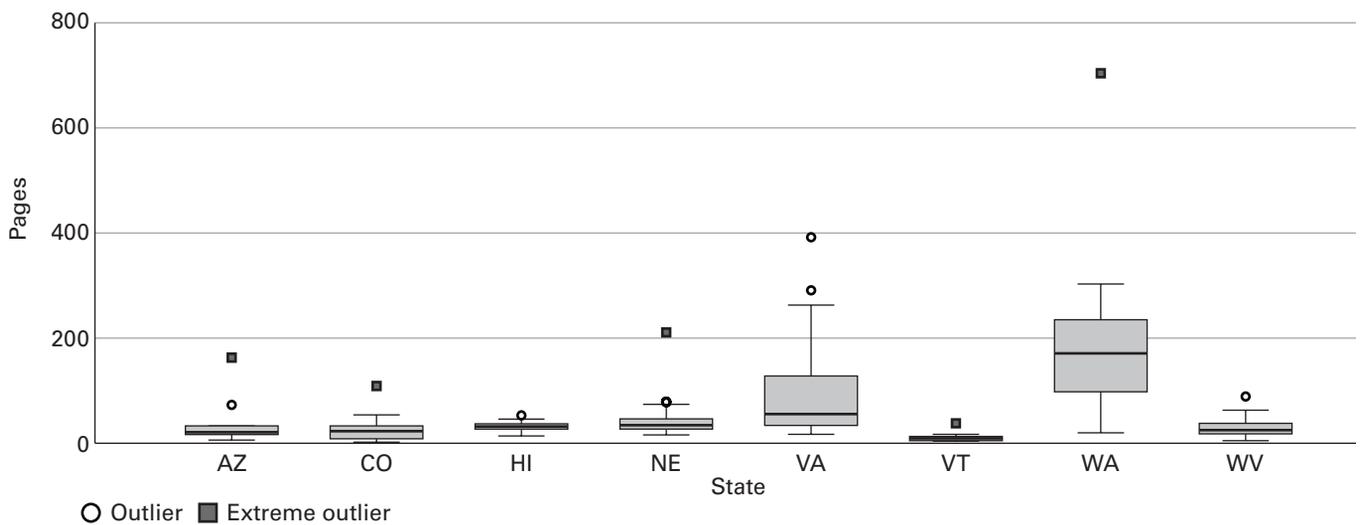
Page Length Plotted From First Report to Current Year in 5-Year Intervals



To better understand where this increase in resource usage is located, additional box whisker plots were generated. Figure 4 limits the analysis to those states that have produced 10 or more reports.

FIGURE 4

Report Page Lengths for States With 10 or More Sunrise Reviews

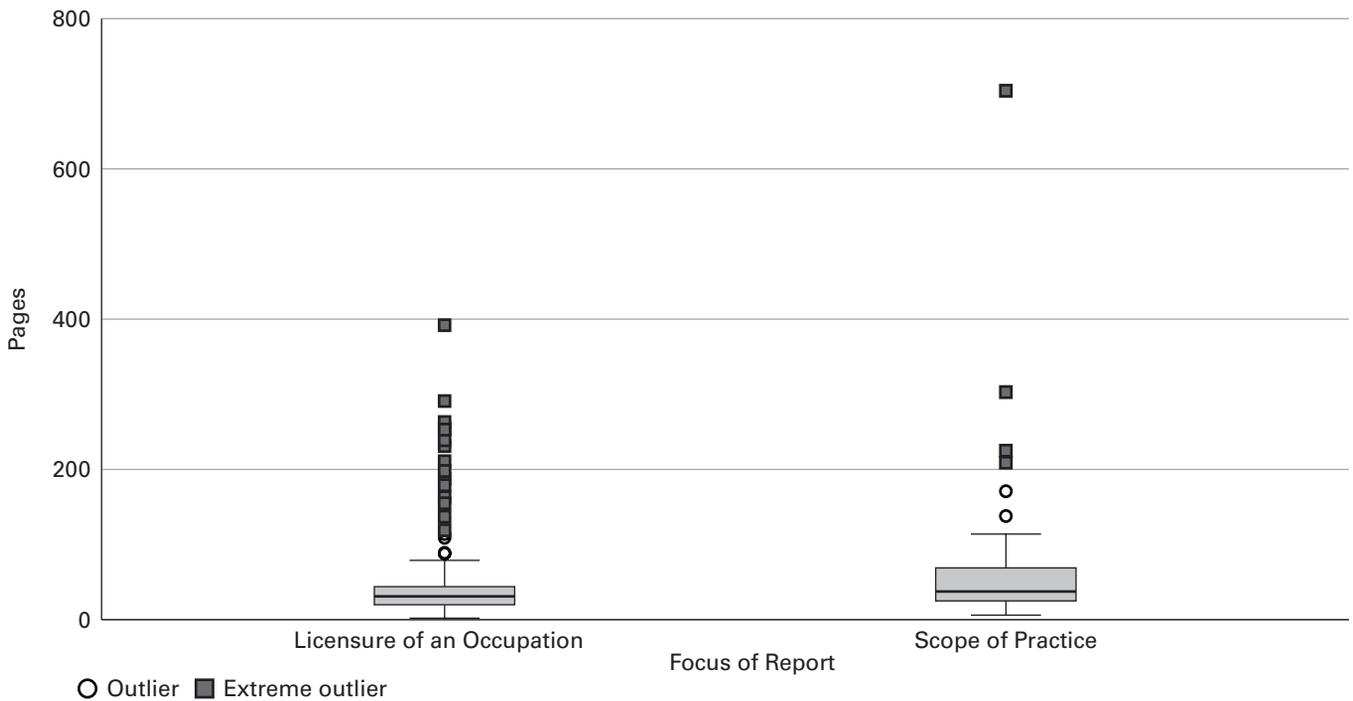


Virginia and Washington State have greater variability in page length of reports. For example, reports from Washington State range from 20 to 704 pages (35-fold difference). Also, the median length of report is marginally longer in the case of Virginia and considerably longer in Washington compared to other states (Figure 4).

It is also important to explore whether there is a difference between those reviews considering the establishment of a new occupational regulatory regime as opposed to those considering requests for a change in scope of practice of an already licensed group of practitioners. In this case, reviews associated with changes in scope of practice tend to be marginally longer (Figure 5).

FIGURE 5

Page Length of Reports by Review Type



Examination of outlier reports in both the licensure of new occupations and change in scope of practice were characterized by existing occupations seeking to retain control of a particular practice. For example, in Washington in 2016, physiotherapists introduced dry needling, which was resisted by acupuncturists; in Virginia in 2005, naturopaths sought licensure that physicians opposed. Another contentious issue resisted by physicians is the granting of prescriptive authority or practicing autonomously to a range of other disciplines (various types of advanced practice registered nurses, psychologists, and pharmacists). Tensions within the profession also seem to drive activity where new assistive personnel or support disciplines are created and established to discharge aspects of an existing profession’s scope, such as in the case of surgical assistants, care support staff, or physiotherapy or occupational therapy assistants. These data provide further evidence to support the argument that licensure and changes in scope of practice may be driven or resisted by the professions focused on retaining power rather than a focus on acting in the public interest or meeting the needs of recipients of services.

Thematic Analysis

Two approaches to thematic analysis were taken. The first used the auto code function of NVIVO 12 while the second used the manual inductive approach as described by Thomas (2006). Manual analysis of the report content enabled a mapping of the structural themes and subthemes identified, and details are included in Table 4.

TABLE 4

Structural Content Generated Using Thomas' (2006) General Inductive Approach

Theme and Subthemes	Description
Purpose for Proposal	Definition of problem that professional licensure or scope-of-practice change is necessary using the sunrise application process (i.e., rationale for sunrise application proposal)
History	Background and defined terms well-known to the profession requesting regulation and used throughout the report
Demographics	Population characteristics of profession and persons seeking out the profession affected by the proposed sunrise application (e.g., number employed in state, setting of practice, groups employing profession)
Literature Review	Referenced data relevant to the applicant profession that identify positive or negative effects of sunrise application proposal
Public Interest	Public health, safety, and welfare concerns to protect consumers from incompetent practice with profession's sunrise application proposal
Scope of Practice	Legally permitted actions, procedures, and processes as standards of the profession as determined by the state, including hypothetical standards to be recognized in the future for the profession if accepted by legislation
Objectives	Set of criteria identified to assess appropriateness of regulation
Analysis of Proposed Regulation	Advantages and disadvantages identified by entity submitting sunrise application proposal
Cost-benefit analysis	Benefits and drawbacks are contrasted with any costs or expenses associated with sunrise application proposal to regulatory, public, and/or licensed professional
Education	School, job training, clinical hours, continuing education credits, competencies/skills as prerequisites for the profession seeking sunrise application proposal
Relevant Statutes	Specific statutes referenced in proposal as a hindrance to profession's scope of practice, including statutes as justification for the reason the sunrise application proposal is necessary
Private Organizations	Existing professional accreditation/credentialing organizations providing quality assurance (e.g., disciplinary actions, examinations, ethics committees) outside of the proposed state regulation
Recommendation	Validation (or not) of benefit to the public that the sunrise application proposal for professional regulation is necessary
Author of Report	Entity providing sunrise application proposal (e.g., a profession's organization in the form of a petition to a committee or a standing committee auditor appointed for the review of the profession by the state)
Bill for Proposal	Draft of bill and legislative rules associated with the rationale for the sunrise proposal; the bill may be proposed directly to the state House of Representatives or indirectly through a committee

NVIVO auto coding initially resulted in 51 themes with 13 of the reports coded to the theme "genetic" and 195 reports coded to the theme "licensed." As some of the auto-coded themes had common stems (e.g., health and healthcare, licensed and licensure, profession and professional, therapists and therapy), a manual review of all themes occurred to identify whether these themes could be consolidated. On initial inspection, some themes had possible synonyms, such as examination and testing or education and training, and these were also reviewed. A full record of the consolidated 40 themes and is included as Appendix A. Overlaps that occurred or relationships to other themes that were identified are noted in the theme column and an associated thematic explanation is provided. Additionally, it is important to note that in some cases the noun clauses referred to terms that did not provide insights into the sunrise process or were so general that they simply offered information on the discipline, context of practice, history of the profession, or regulatory situation in other jurisdictions. Accordingly, comments highlighting these points can also be seen in the right-most column.

Close examination of the extracted themes and consideration of the source material indicated that a number of these contributions speak directly to the sunrise review process and at times raise questions on the need for further research. Additional research could inform and bring clarity and standardization to the development of more consistent decision-making processes.

The Sunrise theme and the three subthemes of Criteria, Process and Actors, and Legislative Action could not be viewed in isolation but instead had to be explored in consideration of the interrelationships with other themes, which leads to a cascade of connections where one theme informs or is informed by one or more of the other themes and subthemes. As an example, we considered a small part of the interdependent map featured in Figure 6.

Sunrise Theme

Starting at point A in Figure 6, the sunrise content reports had a lot of information on the issues being considered. Data were specific and, in many cases, presented in a general framework designed to ensure relevant information was available to those seeking to decide whether legislative action was needed. In short, the authors of those reports spent time offering context.

Criteria Subtheme

Criteria (point B) sets out the dimensions used to assist legislators in the determination as to whether the requested legislative action is justifiable. These criteria typically focus on whether the discipline in its entirety or through an alteration to scope of practice present a measurable harm to the recipient of the service. Also, the criteria focus on an assessment of whether the benefits of any proposed regulatory action outweigh any disadvantages. Finally, consideration of the proportionality of the regulatory tool being used to mitigate the risk of harm being posed and the negative impacts on the recipient of service, operating costs, and labor market dynamics are considered.

Factors that typically need to be considered include the following: (a) the level of any practitioner and their associated autonomy and an explicit examination of how the discipline is regulated elsewhere (registration, certification, licensure, etc.); (b) any interventions or acts that they are able to perform under their scope of practice that carry particular risk of harm; (c) scrutiny that the education and testing is proportionate to ensuring they can offer minimum safe standards to meet the care needs; and (d) health and healthcare needs of the patient. In reaching a decision on this a range of factors associated with acting in the public interest, the net costs of regulation not only to recipients but also society as a whole and the degree to which the public has been involved should be addressed. Unfortunately, many of these factors are poorly defined, and often general statements about “appropriateness” rather than explicit, succinct, and measurable criteria are considered. One notable exception is work conducted by Colorado when considering the 1994 hemodialysis technicians’ application. In considering what was and was not appropriate, considerable precision was provided in the application. For instance, the report stated:

The delegating nurse shall be solely responsible for determining the required degree of supervision the delegatee will need, after an evaluation of the appropriate factors, which shall include but not be limited to the following:

(a) The stability of the condition of the patient;

(b) The training and ability of the delegatee;

(c) The nature of the nursing task being delegated; and

(d) Whether the delegated task has a predictable outcome (Colorado Department of Regulatory Agencies Office of Policy & Research, 1994).

This example demonstrates that an explicit statement of what is required offers increased transparency of the decision-making process and provides more guidance to any board that is subsequently approved to regulate the discipline. Statements may include, but are not limited to, information on required knowledge, skills, behavior, or resources that would result in what can be deemed as minimal safe practice. This challenge is not unique to health professions, and examples such as those explored by Deloitte & Touche LLP (2012) when considering a systematic approach to dealing with enterprise risk in the financial services sector provide a model that could be developed for the occupational regulatory sector.

Processes and Actors Subtheme

Processes and Actors (point C) leads to two major areas of connected work. These areas address the structural components of the regulatory system and their interdependence and the focus of the regulatory question being posed. Both collective themes, Groups, Occupations, Providers and Professionals and Professions, as well as more precise descriptors of various disciplines that dominate the narratives in the various reports (nurse, medicine and physicians, therapy and therapists, assistants, physical and genetics), are identified. In addition, these themes and descriptors lead to a consideration of the procedures, processes, and treatments associated with practice and practitioners. It is important to note that the genetics theme features in this analysis; through detailed scrutiny of the review reports, there was as a concerted effort by the professional association across multiple states to seek licensure for genetic counsellors.

Legislative Action Subtheme

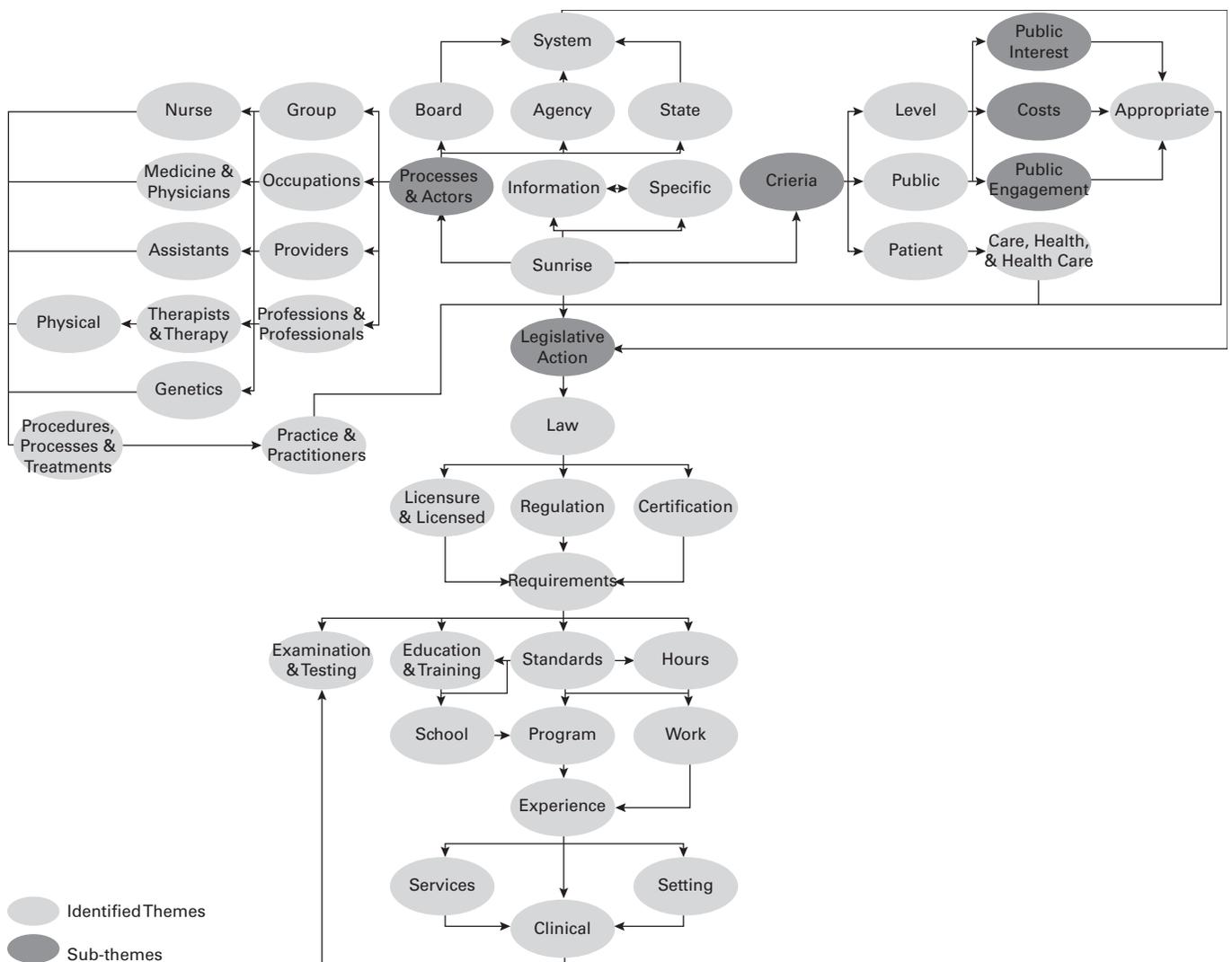
By contrasting the deliberations of the outputs from Criteria and Processes and Actors, Legislative Action (point D) and the legislative body reaches a decision on whether new (regulation of a discipline) or revised (change in scope) of legislation is required. Depending on the risk of harm, legislatures can choose from a range of regulatory tools. Most commonly, these regulatory tools relate to certification, regulation, or licensure. Ross (2017) highlighted that there are a wider range of options, often referred to as an inverted pyramid of regulatory intervention; however, these options did not feature as a major theme in terms of regulatory control. This is

perhaps an expected finding as the analysis is restricted to health disciplines with direct access to patients. The reports all provided considerable detail regarding the regulatory requirements needed to gain licensure, certification, or registration. However, there is no calibration between these requirements and the risk of harm or the components of that risk other than disjointed elements, such as the Colorado example above in which the stability of the patient's condition, the nature (degree of risk) of the intervention, the predictability of outcome, and the competence of the individual delivering the treatment are identified. By systematically identifying these components and calibrating them against the options available in the regulatory pyramid, a more systematic set of decisions may be possible, and we contend that they certainly warrant further research.

It is not the intention of this analysis to detail the entire mapping of relationships identified regarding the entire set of all 40 themes. Instead, we sought to highlight the utility of the approach, the potential to generate further areas of research inquiry, and the complex and recursive nature of the various elements identified. By examination of the various themes and their relatedness, a series of insights were generated and are documented in Appendix A along with commentary on the mapping and relatedness of the themes and subthemes.

FIGURE 6

Mapping of Regulation Report Themes and Their Interconnections Based on Shared Coded Content



Best and Promising Practices

Reviews of the various U.S. state and interested-actor websites provided content to identify best and promising practices, in which are shown in Table 5. The relevant legislation underpinning the sunrise process, the strengths of the best or promising practice and areas for potential improvement are all included.

As highlighted earlier, the concept of sunrise reviews is not unique to the United States, and examples of best and promising practices can be found internationally. These are reported as country-based narratives.

Australia

The governments of the Australian states and territories agreed to create a uniform approach to health profession regulation in 2009 (Health Practitioner Regulation National Law Act, 2009) to bring greater consistency to regulation between states and territories, facilitate mobility, support new ways of care delivery, and increase efficiency. To achieve these, extensive consultations occurred, comparisons across states and territories were conducted, and draft legislation were developed. Although this was not strictly a sunrise review, it had the same impact because a sunrise review process was embedded in the legislation.

Because health professional regulation was a responsibility of each of the states and territories, the same legislation had to be passed in each state to enable a unified system. The legislation was detailed and lengthy (>300 pages), and the new scheme started by bringing together the regulatory structures for each of the regulated health professions. Several new professional groups have joined the new arrangements since their inception. Before new groups join the scheme, a comprehensive submission of data and extensive deliberations occurs. The Professional Standards Council has produced detailed guidance and a comprehensive application template (Professional Standards Councils, 2017a, 2017b).

TABLE 5

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
Arizona (Ariz. Rev. Stat. § 32-3103) https://www.azleg.gov/viewdocument?docName=https://www.azleg.gov/ars/32/03103.htm	The state provides a resource handbook that describes the process of both sunrise and sunset reviews. https://www.azleg.gov/Sunset_Review.pdf	<ul style="list-style-type: none"> ● It provides transparency in the process and helps standardize the content presented in the review. ● The document is reviewed and updated regularly. ● The guidance clearly identifies the purpose as to seek regulation of disciplines or expansions to the scope of practice of existing regulated groups. ● For new disciplines, the legislation clearly states four criteria that must be met: <ul style="list-style-type: none"> ○ Credible evidence that unregulated practice will do harm or endanger public health. ○ The potential for harm is easily recognized and not remote. ○ Public needs can reasonably be expected to benefit from the assurance of initial and continuing professional ability. ○ The public cannot be effectively protected by another means in a more cost-beneficial manner. ● It provides direction on the content of any submission seeking legislative action to regulate a new discipline. 	<ul style="list-style-type: none"> ● Although many of the reviews cite evidence, there is no critical review of the evidence. Best practices by the World Health Organization suggest that any evidence cited should be graded for the degree of reliance the decision maker can place on the evidence offered. https://apps.who.int/iris/bitstream/handle/10665/145714/9789241548960_eng.pdf ● While clear criteria for the establishment of a new regulatory regime for a discipline previously unregulated is stated, there is no such guidance on criteria to determine expansion or change of scope of practice. ● Although the guidance specifies criteria to consider and content to cover in the submission, a more detailed template would further assist standardization of submissions.

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement *(continued)*

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
<p>Colorado (Colo. Rev. Stat. § 24-34-104.1) https://casetext.com/statute/colorado-revised-statutes/title-24-government-state/principal-departments/article-34-department-of-regulatory-agencies/part-1-organization/section-24-34-1041-general-assembly-sunrise-review-of-new-regulation-of-occupations-and-professions</p>	<p>The state, as part of its comprehensive legislative drafting manual, provides detailed guidance on both sunrise and sunset legislation. In addition, the regulatory agency has produced a video that explains the process of sunrise and sunset reviews. https://youtu.be/ECCRxb95mpQ</p>	<ul style="list-style-type: none"> • The current version of the drafting manual is available online at https://leg.colorado.gov/sites/default/files/drafting-manual-20200908.pdf. • Further details of the legislative processes are included in the Colorado Legislative Rules publication (https://leg.colorado.gov/sites/default/files/2019_combined_legislative_rules.pdf). • For new disciplines, the Colorado guidance uses the same four criteria as Arizona: <ul style="list-style-type: none"> ○ Credible evidence that unregulated practice will do harm or endanger public health. ○ The potential for harm is easily recognized and not remote. ○ Public needs can reasonably be expected to benefit from the assurance of initial and continuing professional ability. ○ The public cannot be effectively protected by another means in a more cost-beneficial manner. • In addition to hosting the sunrise reports, Colorado also posts denials along with the submitted report. This provides additional transparency and highlights the basis upon which a decision was reached. • The state also produced a general guide for its citizens encouraging their participation in rulemaking processes (https://drive.google.com/file/d/0B6RhHT_h2_eVIJxWDh5aDRuUzA/view) and an infographic explaining the sunrise review process along with a submission template to standardize reports (https://drive.google.com/file/d/12jleARYW0CEwbbBKY0sjZiNkU5d2LhsT/view). 	<ul style="list-style-type: none"> • Current guidance appears to limit the sunrise review process to consideration of new disciplines seeking legislation to establish a regulatory regime, although careful examination of the definition of sunrise provided in the glossary may permit an interpretation that changes to scope of practice can be considered via this route. This is an area that the state may wish to clarify and offer specific criteria that should be addressed in any submission.
<p>Florida (Fla. Stat. § 3.11.62) http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0000-0099/0011/Sections/0011.062.html</p>	<p>The state provides guidance on the legislative review of proposed regulation of unregulated functions. https://www.flsenate.gov/Laws/Statutes/2018/11.62</p>	<ul style="list-style-type: none"> • The guidance details the scope of the sunrise provision and makes it clear the state is exercising these as part of its constitutional duties under the 10th amendment of the U.S. Constitution. • It provides, as part of the statute, a clear listing of the criteria to be used when determining whether a discipline should or should not be regulated. 	<ul style="list-style-type: none"> • Finding sunrise reports was extremely difficult. The state may wish to review how such documents can be better indexed and retrieved from the Legislative Activity website.

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement *(continued)*

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
Georgia (Ga. Code Ann. § 43-1A) http://ga.elaws.us/law/43-1a	The Georgia statute explicitly states the information needed to conduct an occupational regulation review. http://ga.elaws.us/law/section43-1a-7	<ul style="list-style-type: none"> • In addition to requesting information on the harms that unregulated practice might bring, the review process focuses on the recipient of the service and asks applicant entities to describe any harms that the regulatory process might pose to the recipient. While other states frequently explore the negative impact of regulation on costs and labor market dynamics, this focus on the recipient of service provides additional information to be considered regarding the type of regulatory tool to be used (e.g., registration, certification, licensure, or other). • The guidance also raises the issue of comparability with other jurisdictions and whether the regulatory model being proposed has the capacity for reciprocity and mobility of those regulated for trans-jurisdictional mobility. 	<ul style="list-style-type: none"> • The framework lacks specificity in how the various factors being considered are compared. In some cases, words such as <i>confident</i> are used without elaborating the dimensions used to reach such a determination.
Hawaii (Haw. Rev. Stat. § 26H-5) https://law.justia.com/codes/hawaii/2019/title-4/chapter-26h/section-26h-5/	Hawaii has sunrise provisions detailed in Volume 01, Title 4, Chapter 26H-2 of the State Statutes. https://law.justia.com/codes/hawaii/2009/volume-01/title-4/chapter-26h/hrs-0026h-0002-htm	<ul style="list-style-type: none"> • The State Legislative Reference Bureau conducted a comprehensive review of Sunrise provisions in Hawaii and other states to identify the regulatory structures used and the associated criteria that drive decision-making on the establishment of a regulated group. • Hawaii has an easy-to-navigate website, listing in chronological order digital copies of sunrise and sunset reports hosted on the Office of the Auditor site (https://auditor.hawaii.gov/sunrise-sunset/). 	<ul style="list-style-type: none"> • The analysis is somewhat dated. With the increased interest in the use of sunrise reviews, it may be time to update this analysis.
Idaho (Idaho Code Ann. § 67-9408) https://legislature.idaho.gov/statutesrules/idstat/Title67/T67CH94/SECT67-9408/	While Idaho can conduct sunrise reports as part of a more comprehensive statute, they have not done so up until this point.	<ul style="list-style-type: none"> • The state provides easy access to their reports conducted under the statute and indexes them by year of production and by general topic theme, such as “Health and Human Services.” 	<ul style="list-style-type: none"> • With the increased interest in occupational licensing, it would be useful to see how Idaho applies the powers granted when the next application for the establishment of a health professions discipline is made.
Indiana	With support of the Bowen Center for Health Workforce Research & Policy, the Indiana Occupational Licensing Policy Learning Consortia examined sunrise and sunset provisions. https://www.in.gov/dwd/files/IndianaOL_CoreTeam_SunriseReview.pdf	<ul style="list-style-type: none"> • The analysis provides some clarity over the scope, who can request reviews, and who conducts them, and it describes the specific process. • It suggests a framework to consistently explore the questions posed by various states to inform whether a sunrise review process would be of interest. 	<ul style="list-style-type: none"> • While identifying the variations in how sunrise reviews are conducted, no information on the relative advantages and disadvantages of the approaches is provided.

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement *(continued)*

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
<p>Maine (Me. Stat. Title 32, § 60-J https://legislature.maine.gov/statutes/32/title32sec60-J.html</p>	<p>The sunrise review process is set forth in Maine law Title 5 of Me. Rev. Stat. § 12015.3. http://legislature.maine.gov/statutes/5/title5sec12015.html</p>	<ul style="list-style-type: none"> • The statute presents 13 criteria used to determine whether regulation of the occupation is needed. http://legislature.maine.gov/statutes/32/title32sec60-J.html • Reports are required to be structured in response to the 13 criteria, adding to transparency and standardization. In addition, data from interested parties are provided in a template to capture their views in a structured and standard manner. 	<ul style="list-style-type: none"> • On occasions, requests for information by interested parties are completed in longhand, making the submissions difficult to read and machine processing of the data less precise. The state should consider requesting that all responses be submitted digitally.
<p>Nebraska (Neb. Rev. Stat. § 71-6223) https://nebraskalegislature.gov/laws/statutes.php?statute=71-6223.02</p>	<p>Nebraska has a long-standing history of completing sunrise reports focused specifically on healthcare disciplines. https://dhhs.ne.gov/licensure/Pages/Credentialing-Review.aspx</p>	<ul style="list-style-type: none"> • The reports are in an easily accessible web page, which also provides educational resources that describe the purpose and intent of sunrise reviews. • The reports include key documents: the expert research, the deliberations and recommendations made by the committee, and a short two-to-three-page synopsis of the issues and decisions. This approach provides transparency. • The Credentialing Review Program starts to provide a comprehensive explanation of the criteria to be used in reaching a judgment about the most appropriate regulatory response. 	<ul style="list-style-type: none"> • It contains an outdated copy of the text <i>Questions a Legislator Should Ask</i> by Shimborg and Roederer (1994). A third edition of this monograph, edited by Schmitt (2018), is available.
<p>Pennsylvania (Through action of executive order No. 2017-03) https://www.oa.pa.gov/Policies/eo/Documents/2017-03.pdf</p>	<p>After the publication of the White House report into occupational licensure (2015), the governor requested a review of state professional and occupational licensure boards. https://www.dos.pa.gov/ProfessionalLicensing/Documents/EO2017-03-Executive-Report-Occupational-Licensing.pdf</p>	<ul style="list-style-type: none"> • The review provides an analysis of different occupational groups and contrasts the local arrangements with those of other states. This provides a useful resource document when considering new applications for those disciplines already regulated or seeking scope of practice expansions. • It found that only two of 12 studies reviewed produced evidence of licensing improving the quality of services. It also noted that the evidence on licensure's effect on prices is "unequivocal" that more restrictive licensing laws lead to higher prices for consumers. Of 11 studies reviewed, nine found significantly higher prices associated with stricter licensing. 	<ul style="list-style-type: none"> • The review is not a sunrise report; however, the content is highly relevant and should not be discounted by legislators who are considering the use of sunrise review techniques.

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement *(continued)*

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
Vermont (Vt. Stat. Ann. Tit. 26, § 57-3101) https://legislature.vermont.gov/statutes/section/26/057/03104	The power to review licensing statutes, boards, and commissions is found under Twenty-six Vt. Stat. Ann. §§ 3101-3107 govern review.- https://legislature.vermont.gov/statutes/fullchapter/26/057	<ul style="list-style-type: none"> • The website allows for searching for sunrise or sunset reports. The statutes and rules associated with sunrise reviews can be found at https://sos.vermont.gov/media/dadk4tns/administrative-rules-for-procedures-for-preliminary-sunrise-review-assessments.pdf. • A page that documents the various reviews that have been conducted can be found at https://sos.vermont.gov/opr/regulatory/regulatory-review/. • To ensure standardization of submissions, a PDF forms template is used. https://sos.vermont.gov/media/uzfjfnfn/preliminary-sunrise-review-assessment-form.pdf 	<ul style="list-style-type: none"> • There are some additional sunrise reviews on the state website conducted in the early 1990s that can be found but are not listed on the sunrise review page.
Virginia (Va. Code Ann. § 54.1-310.1) https://law.lis.virginia.gov/vacode/title54.1/chapter3/section54.1-310.1/	Virginia has the power to investigate and recommend whether regulation is needed and the level of regulation of any health-care occupation. https://law.lis.virginia.gov/vacode/title54.1/chapter25/section54.1-2510/	<ul style="list-style-type: none"> • A specific page dedicated to sunrise reviews conducted is available. The site includes information on the need to license certain groups as well as examining aspects of expanding scope of practice of existing licensed professions or adding addition potential perceived barriers (https://www.dhp.virginia.gov/AboutDHP/AgencyStudies/) • A comprehensive review of the criteria used for assessing the need to regulate any discipline is also available (https://rga.lis.virginia.gov/Published/1998/HD8/PDF). 	<ul style="list-style-type: none"> • This is a comprehensive resource with both current and historical reports available; however, it is difficult to find on the website and hence consideration on improving navigation to the site should be considered.
Washington (Wash. Rev. Code § 18.120) https://app.leg.wa.gov/RCW/default.aspx?cite=18.120	The powers to conduct sunrise evaluations are contained in Title 18 Chapter 18.120 RCW. https://app.leg.wa.gov/RCW/default.aspx?cite=18.120	<ul style="list-style-type: none"> • Sunrise reports are organized alphabetically on a dedicated web page. • The sunrise reviews apply to a range of issues such as mandated benefits but have several reports that address the licensure of an occupation or an extension to the scope of practice of an already regulated discipline (https://www.doh.wa.gov/AboutUs/ProgramsandServices/HealthSystemsQualityAssurance/SunriseReviews/AZList) • The website also provides guidance and templates for submitting materials for sunrise review consideration (https://www.doh.wa.gov/AboutUs/ProgramsandServices/HealthSystemsQualityAssurance/SunriseReviews/HealthProfessions) • Guidance on changes to scope of practice can be found at https://www.doh.wa.gov/Portals/1/Documents/2000/AppReportOutlineScope.pdf. 	<ul style="list-style-type: none"> • Not all reports conducted are available for download.

Best and Promising Practices for Sunrise and Sunset Reviews From the United States With Further Suggestions for Process Improvement *(continued)*

State and Relevant Statute	Description of Best or Promising Practice	Strengths	Opportunities for Improvement
West Virginia (W. Va. Code §30-1A) http://www.wvlegislature.gov/WVCODE/code.cfm?chap=30&art=1A	Sunrise reviews are conducted by the performance evaluation and research division of the office of the legislative auditor. https://code.wvlegislature.gov/pdf/30-1A-3/	<ul style="list-style-type: none"> • Sunrise reviews are conducted by an expert entity, and there is a set of clear criteria against which any applications are assessed. • A specific website hosts the reports of the Performance Evaluation and Research Division, and this can be searched by year of production, agency involved, or keywords. Sunrise-relevant reports can be easily found through search. http://www.wvlegislature.gov/Joint/PERD/reports.cfm 	This model of an expert group may assist in the identification and documentation of the competencies required to generate valid reliable and consistent sunrise review reports.
American Legislative Exchange Council (ALEC)	Provides commentary and draft template legislation to advance issues that the group is interested in.	<ul style="list-style-type: none"> • It proposes template language to advance the establishment of sunrise and sunset review process "Occupational Licensing Review Act (Formerly part of Occupational Board Reform Model Act) (https://www.alec.org/model-policy/occupational-licensing-review-act-formerly-part-of-occupational-board-reform-model-act/). • The draft language also offers a list of regulatory interventions ranked from least to most restrictive. 	<ul style="list-style-type: none"> • There is no material on the website to provide critical review of the various clauses being proposed or the evidential basis upon which the clauses have been developed. • The list of regulatory interventions needs to be calibrated against the characteristics of harm they seek to control or mitigate.

Canada

As part of their Health Professions Act, several jurisdictions in Canada have provisions for considering other health disciplines that are seeking to become regulated professions. In Manitoba, this is contained in Part 11 under the heading of New Regulated Health Professions, subsection 156(1) to 162 (The Regulated Health Professions Act, 2009). In addition to the legislative basis for receiving applications, the government provided more detailed information on the application content and the associated processes to be followed (Manitoba Health, 2021). Both the legislative instrument and the associated guidance provide useful pointers to the dimensions to consider in assessing the risk that any applicant discipline might present to the public.

In Alberta, the Health Professions Act (2000) revised statutes of Alberta Chapter H-7 part 1, subsection 25, provide information on how groups seeking to become regulated professionals can apply for recognition. Similar criteria to those used by Manitoba against which applications will be assessed are documented in the legislation.

The Government of Ontario also has provisions for the regulation of new professions under the Regulated Health Professions Act (1991). In this case, a Health Professions Regulatory Advisory Council (HPRAC) was established and is charged with providing advice to the minister on whether unregulated health professions should be regulated. The HPRAC developed a comprehensive guide to the criteria used and the processes followed in considering any application for regulation. Included in the guide is information on the type and quality of evidence that can be used in any submission (HPRAC, 2011).

New Zealand

In the Health Practitioners Competence Assurance Act of 2003, there are provisions to extend those professions that can be regulated under the act. In addition to the legislation, guidance is also offered and includes a flowchart that helps explain the various processes to follow (Health Workforce, New Zealand Ministry of Health, 2003). After the development of the guidance, a discussion document to explore how a determination on whether statutory regulation is needed was produced (Ministry of Health, 2010).

United Kingdom

Since the establishment of the Council for Healthcare Regulatory Excellence in 2002 and its subsequent transition to the Professional Standards Authority for Health and Social Care (PSA), work on assessing the level of risk that any profession offers occurred. Several studies comment on the topic of “right touch regulation,” and perhaps one of the most conceptually interesting of these is the PSA (2016) document on methodology. In this document, an initial attempt is made to record a set of criteria in the form of a flowchart or decision tree that identifies whether there is a need to consider regulation of a new discipline.

Observations Made From U.S. and International Sunrise Best and Promising Practices

Consideration of the various examples highlight contributions that address the currency of guidance, transparency, clarity and accountability, criteria, standardization and comparability, and mobility. The following observations linked to the content of Appendix A could be used to substantially improve the specificity of the occupational board reform act templated language proposed by the American Legislative Exchange Council (2019). Furthermore, these points could augment the recommendations offered by Skorup and Hemphill (2020) who provided guidance on how to analyze occupational licensing laws.

Currency of Guidance

Several U.S. states produce guidance that is updated on a regular basis, such as Arizona’s guidance compendium and Nebraska’s website that details the work that is planned for the year ahead. Other states offer guidance, but it can be several years old. Such guidance may still be current, but frequently material does not indicate whether it is extant. In some cases, guidance refers to material such as Shimberg and Roederer (1994) on questions legislators should consider, but this text has been updated by Schmitt (2018). Some states target their guidance at different audiences, such as professional groups wishing to submit proposals for licensure or the public who may be impacted by such actions. Furthermore, short videos, like Colorado’s, use a question-and-answer format that seeks to explain the review processes.

Transparency

Closely linked to the issue of currency of guidance is the wider issue of the content of the guidance. Clearly describing the processes to follow, the information needed, the timeframes by which information should be submitted, and when decisions are going to be made provides greater transparency of the review process. Sometimes this information is set out on a web page as a narrative, as is the case for Washington, or as a general flowchart, as found in the New Zealand guidance note (Health Workforce, New Zealand Ministry of Health, 2003).

Clarity and Accountability

Several states offer a set of explicit questions that need to be addressed in any submission for sunrise review. These questions are frequently a mix of demographic questions relating to the numbers of individuals who would be involved in the registration process and the requirements such as education needed or criteria used that help legislators assess the risk and benefits of any regulatory action. Some states such as Vermont use fillable forms to ensure that legible and length-limited submissions are made. In Ontario, the template is accompanied with comprehensive guidance that highlights the purpose of requesting the various pieces of information. By using such templates, the evidence upon which decisions are made is far clearer, thus strengthening the possibility of holding decision makers to account. Another practice supporting accountability can be found on several state websites where the outputs of the various reviews can be searched by topic, discipline, and date. This facilitates comparison over time and memorializes the work of the legislature so those considering the same discipline in another state may gain insights.

TABLE 6

Summary of Criteria Used by U.S. States to Determine the Need for Regulation

State	Cause Harm	Benefit of Education	No Alternative Protection	Benefits Outweigh Costs	Specialized Skill Needed	Adverse Labor Market Impact	Least Restrictive Regulation	Jurisdictional Comparisons	Self-Funding	Innovation Competition & Economy	Professional Characteristics	Public Opinion
AZ	✓	✓	✓	✓								
CO	✓	✓	✓	✓								
CT	✓		✓				✓	✓				
FL	✓		✓	✓	✓	✓						
GA	✓	✓	✓	✓	✓							
HI	✓	✓				✓	✓		✓			
ID	✓		✓	✓		✓	✓					
ME	✓		✓	✓	✓		✓	✓				
MN	✓		✓	✓	✓							
NE	✓	✓	✓	✓		✓	✓	✓				
OH	✓		✓				✓			✓		
VT	✓	✓	✓									
VA	✓		✓		✓	✓		✓			✓	✓
WA	✓	✓	✓	✓		✓	✓					
WV	✓	✓	✓	✓	✓							

Criteria

Within the legislative documents underpinning the process, there is often a set of principles or criteria upon which any decision on whether to license, certify, or register a particular discipline can be based (Appendix B). A summary of the criteria considered is presented in Table 6. Invariably, these criteria refer to the potential that a discipline causes harm to the recipient of the service. In most cases, this criterion is expressed in an imprecise way or uses terms such as “substantial hazard” that are unquantified. In rare cases, such as in the Hawaii statute, additional detail is offered relating to the “nature of the service” or historical data on the level of abuse perpetrated against recipients of the service. Nature of service is an approach used by some Canadian provinces that have a list of restricted acts that can only be performed by licensed individuals.

In some cases, templated language has clearly driven the drafting of the legislation such as that offered by the American Legislative Exchange Council. In other cases, there is variation between the focus and number of criteria used. For example, both Colorado and Arizona use four identical criteria, albeit expressed slightly differently, whereas Maine specifies a total of 13 criteria that covers the issues addressed by Colorado and Arizona and takes a broader perspective. However, some of the criteria detailed in the Maine legislation examine differing elements of the same concept such as looking at varying aspects of jurisdictional comparisons of approach.

There are several criteria widely used whereas other criteria are featured in only one or a few statutes. In some cases, such as Ohio, instead of looking at adverse impacts on the labor market, they explicitly seek out how the regulation will promote the economy, competition, and innovation.

Looking for alternative means of protection and only using the least restrictive regulatory approach are closely linked. Interestingly, the statutory language of Ohio, Vermont, and Washington provide specific guidance on the alternatives to licensure that should be considered under certain types of harm. We contend this is an important step toward greater and more standardized approaches to the calibration of harms to the appropriate least-restrictive regulatory response.

As noted, sunrise reviews often look at the establishment of the need to regulate various types of support workers. This area is one in which the use of comparator data might be particularly helpful—but not through looking at how the work is regulated in other jurisdictions. Instead, a close examination of the relationship between the existing discipline and the support role may help

differentiate criteria that will result in a proportionate response. In some cases, literature on differentiation of practice or the conditions under which delegation of practice can occur may offer valuable insights (Ballard et al., 2016).

By specifying criteria and the relationship across levels of practitioner, we contend that transparency is added and the potential to move toward more consistency of judgment is increased. Virginia conducted a structured review of their criteria and as a result updated them some time ago. However, no state or province has clearly delineated the degree of harm or the other measures used that would equate with a decision to license, certify, or register a particular discipline. This would not be an easy task considering that in reality, it is the interaction of multiple criteria that needs to be considered before a calibrated and consistent response can be determined. To do this, lessons may be learned from some of the work currently underway using discrete choice experiments that have been used by the World Health Organization (2012) on related health workforce issues. We contend, having examined the reports covered by this study, that further research on developing instruments or algorithms to quantifiably assess the level of risk that a proposed discipline presents would be necessary if consistent mapping of risk against a range of potential regulatory responses (e.g., licensure, certification, registration) is to be achieved. Only then would it be possible to assess whether the various regulatory tools (standards of education, practice, and conduct; entry to practice examinations; continuing competence assessment and continuing professional development; hours of practice and how recent practice was) can be deployed in a proportionate manner to mitigate potential harms.

Standardization and Comparability

The use of templates and criteria offers the possibility of standardizing sunrise reviews both within a jurisdiction where relative risk across different disciplines can be compared and across jurisdictions where consistency of decision-making may ultimately be facilitated. With regards to comparative datasets, Pennsylvania produced a comprehensive analysis of the requirements needed for a wide range of health disciplines across multiple U.S. jurisdictions. Furthermore, the National Conference of State Legislatures has also curated a database on national occupational licensure (<https://www.ncsl.org/research/labor-and-employment/occupational-licensing-statute-database.aspx>) that could prove helpful in furthering comparability and standardization. If a focus on nursing were to be pursued, the global regulatory atlas (<https://regulatoryatlas.com/>) assembled by NCSBN would likewise be valuable.

Mobility

Closely linked to the focus on standardization is the impact that regulation can have on mobility of licensure. Georgia explicitly identifies this as one of the issues they consider in reaching decisions on the regulation of occupations. Mobility, particularly in relation to military spouses and low-income groups, has been an issue of significant concern to legislators and academics (National Council of State Legislatures, 2021; Meehan et al., 2017). The use of standardized examinations across the nation can lead to approaches such as the Nurse Licensure Compact that, as acknowledged by the Council of State Governments (2020a), can facilitate mutual recognition and reduce delays for those who wish to find work in other jurisdictions.

Drivers and Solutions

As noted, recently there has been increased interest in the subject of sunrise reviews (Bison, 2020). This interest appears to be linked to the work of several political science and economics scholars who are concerned by the rapid increase in the use of licensure as a means of controlling entry to various occupations (Kleiner, 2006, 2015; Berliner, et al., 2017). In addition, both federal and state-based legislators in the United States and their counterparts in other countries and jurisdictions have sought to reduce overly burdensome regulation as part of general regulatory reform initiatives (OECD, 1997, 2009).

The Power of Larger Data Sets

Growth in occupational licensure is not unique to the United States, with similar trends reported in Europe and Japan (Morikawa, 2018; Koumenta & Pagliero, 2018). The 2015 Obama White House Report on Occupational Licensure is often cited as a trigger for renewed interest in sunrise reviews in the United States. This driver has been supported by various group reports such as the National Conference of State Legislatures (2019) and the Council of State Governments (Parfitt, 2017). It has been argued that increases in licensure requirements have limited the ability of workers to gain employment and has had an adverse impact on labor markets specifically in terms of interstate mobility, inconsistencies across states in requirements for licensure, and ability for individuals in low paying jobs to find the resources to complete licensure requirements (Johnson & Kleiner, 2017; Nunn, 2016). However, using large data analytics, Redbird (2017) identified that licensure has a positive effect in terms of addressing bias against disadvantaged communities as entry requirements are explicitly stated, which brings greater transparency to the selection and appointments process.

While diversity of approach from one jurisdiction to the next can offer significant insights into what works and what does not, we posit that by gathering reports generated over time, across jurisdictions and from different countries, strengths and weaknesses

can be identified. We believe that a central repository of all sunrise reports drawn from all jurisdictions would provide a means of leveraging data from individual jurisdictions to enhance decision-making capacity for all. Indeed, some attempts to undertake a limited analysis of occupations have already taken place, such as the work by Carpenter et al. (2020). Carpenter et al. focused on entry to practice barriers and ranked occupations on a series of metrics that enable the calculation of their ranking in terms of burdensome licensure requirements and most common and onerous license demands. Unfortunately, this work did not examine measures of degree of harm or other factors that could be used to assess whether these rankings were justifiable.

The OECD has also gathered data sets and has sought to develop a general measure of “product market regulation indicators” across a wide range of industries (OECD, 2020b). These are high level, and although they are not generally applicable to specific occupational groups, the methodology offers some useful pointers in terms of how measures for occupations could be developed. Indeed, the more recent work from OECD by von Rueden and Bambalaitė (2020) on measuring occupational entry regulations mirrors the work of Carpenter et al. (2020) and looks at a level of granularity that shows promise if additional metrics associated with degree of harm and levels of autonomy were included in their analysis. Accordingly, the design of any sunrise database should be mindful of both national and international work if meaningful and proportionate regulatory decision making is to be informed by robust and reliable evidence.

Precision in Definitions

Analysis of the sunrise reports focused on health-related disciplines has provided insights into concepts that overlap and interact. Some of the themes and associated subthemes were precisely defined using a lexical format (where definitions are written in a manner that is clear, precise, easily recognized, and measurable) while others were vague using circular definitions (using the term to define itself, such as defining a competent person as one who demonstrates competence) or stipulative approaches (where “this term” is as set out in a particular clause). While this is not a problem unique to sunrise reports and has been an issue in regulatory legislation, the increased use of lexical definitions may potentially add clarity to the terms used so more consistent judgements could be reached as to the need to regulate a particular group (Benton et al., 2014).

Optimizing Information Requirements

There was extensive variation in the length of many of the reports produced both within a single jurisdiction and when comparing the same discipline across jurisdictions. Those states that offered more precise guidance on the content tended to have reports that varied less in length, were easier to navigate, and provided a means of more readily comparable key issues across disciplines.

Some reports contained extensive content that was misaligned with the prime purpose of the sunrise review, which tended to be found in reports where the authors of the report were professional societies that may, according to Benton et al. (2017), be mandated to advance the profession rather than protect the public. This is perhaps best illustrated when the applicant is clearly seeking to advance the recognition of the discipline and there is an absence or lack of a clearly quantified risk to the recipient of services. Where the review of the evidence and the production of the report was allocated to a branch of government, bipartisan group of legislators, or an expert team of staff, compliance and content of the report was better aligned with the criteria set in statutes and in the templates provided, such as in the cases of Nebraska, Colorado, and Hawaii.

Several helpful and well-structured guidance documents were identified from jurisdictions in the United States and internationally. By distilling the best and promising practices and examples, a model template could be developed and promoted as a means of moving toward a more standardized approach to data collection. Any template, as a minimum would need to provide the following:

1. Clear definition of sunrise review purpose enshrined in legislation.
2. Precise and easily understandable statement of the risk that regulatory intervention seeks to mitigate.
3. Explicit and measurable data to assess any application, including reasons to accept and reject the request for regulation.
4. Clear specification of an independent expert resource to review submissions.
5. Delineation of the process of submissions and associated timescales for review steps.
6. Prescribed content of submissions and digital templates to capture the data.
7. Curation and grading of evidence associated with the proposed discipline.
8. Examination of any proposed or considered legislative solutions against existing laws to ensure they are aligned and absent of actual or potential conflict.
9. Documents readily accessible on government website and stored in a digital machine-readable format.
10. Decisions on whether the application is approved or rejected, and clear rationale for the decision reached.

Transparency and Adding Value

More than 4 decades have passed since Styles and Affara (1986) identified key principles needed to deliver an optimal nurse regulatory system. At that time, the principle of transparency was not present; however, since then, Benton and Morrison (2009) identified

the importance of transparency when they reviewed regulatory principles across a wider range of health economic and governmental sectors. This report led to the publication of a revised and expanded set of principles published by Benton et al. (2013a), including transparency, accountability, and effectiveness.

Several jurisdictions have used advancements in technology to digitize, store, and provide access to their reports. This approach has added value by enabling work to be tracked over time, providing an auditable means of identifying the evolution of thinking as well as documenting the rationale behind licensing decisions. Again, the section on best and promising practices offers insights into work worthy of emulation, such as the digitization of archived reports and the ability to retrieve content chronologically or by theme.

The Search for Consistent and Proportionate Regulatory Decisions

The search for consistent and proportionate regulatory decisions is not new. Styles and Affara (1986), in their set of regulatory principles, describe the need to seek optimacy, which has been more recently referred to as proportionate or right touch regulation (Benton et al., 2013a). However, it is only recently that some of the key underlying dimensions have started to be documented in a more systematic manner (Ross, 2017).

Ross (2017) distilled a set of 10 less restrictive alternatives to occupational licensing from the regulatory literature. The alternatives were schematically represented as an inverted pyramid placing the alternatives in a hierarchy from least to most restrictive interventions, which were further categorized into voluntary or non-regulatory options (market competition; quality service self-disclosure; voluntary third-party professional certification maintenance; and voluntary bonding or insurance) and options that required government interventions (private causes of action, deceptive trade practice acts, inspections, mandatory bonding or insurance, registration, state certification, and licensure).

The PSA (2015) takes a different approach by initially focusing exclusively on health practitioners, but they too recognized there is variability in the force that regulations can apply. In the United Kingdom, the PSA (2015) refers to statutory regulation, whereas in the United States, governmental licensure is used, but nonetheless similar principles emerge. In the case of the United Kingdom, the PSA identified that the least forceful intervention can be the use of codes of conduct, followed by accredited registers and then statutory regulation. After the publication by the PSA (2015), an alternative framework where they proposed a “continuum of assurance” was provided, and it identified a continuum-based model starting with employer controls, credentialing, voluntary registration, and statutory registration/licensing (PSA, 2016). The work of Ross (2017) and the PSA (2015, 2016) highlights some diversity of thought in terms of whether a system should embrace the entirety of disciplines seeking regulation or only those that are health related. It also highlights differences in the use of language.

The use of pyramids or progressive interventions has been explored by many authors, and a collation of this work can be found in the report by Ivec et al. (2015) and in the synopsis of contributions published by the PSA (2018). Both of these sources provide valuable exemplars and offer resources for more detailed exploration of these issues; however, the diversity of material also highlights a lack of clarity of thought and precision of the models being proposed. Further research is needed if consistent and proportionate regulation is to be achieved. From our analysis of this work, we contend that clear delineation and definition of the range of regulatory controls would be required. Also, there is a need to be specific about who can use the various controls, such as consumers of services, employers, professional associations, or statutorily mandated regulatory bodies. This point is important considering that the work of Benton et al. (2017) has clearly demonstrated that the policy aims and drivers of the various groups may be different. Furthermore, in addition to these dimensions, coherence in the use, level, and quantum of education needed; how competence can be measured; and other such factors need to be addressed if a comprehensive model is to be developed.

The Need for Explicit, Valid, and Reliable Criteria

Perhaps the most important issue identified in this study is the variability in criteria and the lack of specificity in their definition, measurement, and application. The lack of such standardization makes it difficult to assess whether the final judgments rendered by the legislatures on whether to regulate or not is justified and defensible. Furthermore, such criteria and the relationship they have in determining the appropriate or proportionate levels of regulation could be explored using a range of approaches and could significantly build upon the findings of this work. While this aspect is beyond the scope of the current study, several approaches could be taken in subsequent work.

In the past, Delphi studies have been helpful in identifying appropriate regulatory dimensions and reaching agreement between stakeholders on their application to regulatory decision-making (Benton et al., 2013b; Spector et al., 2020). Additionally, the World Bank Group in collaboration with the World Health Organization have used conjoint analysis, trade-off analysis, or discrete choice experiments to differentiate the key dimensions in addressing policy decisions (World Health Organization, 2012; Taylor, 2016). These approaches could then be used after a Delphi study to determine the weightings or priorities of the various dimensions identified and how they then map to regulatory response options such as licensure, certification, or registration.

With weightings calculated, it then would be possible to develop algorithms or flowcharts that could guide the decision-making process in a more structured, replicable, and measurable manner. The concept of using decision trees or flowcharts to guide regulatory decision-making is not new; however, the formulation of such decision-making tools from a public safety perspective requires the need for regulatory controls that tend to lack quantifiable measures (U.K. Commission for Employment and Skills, 2013). The work of the Allen Consulting Group (2007) offers some interesting insights, and although the work was not specifically designed to inform health-professional regulation, it is a useful starting point in developing decision-support tools should quantifiable weightings be generated through discrete choice or other approaches.

As previously mentioned, recent work by researchers at the OECD, such as von Rueden and Bambalaite (2020), started to develop scoring systems for occupational entry requirements and to map these to different levels of regulatory control. This research, along with work by other economists and entities seeking to reform occupational licensure, have started to provide useful data and metrics for communicating information, tracking change, and generating narratives for further exploration. Sadly, to this point, this work has focused almost exclusively on wage, mobility, employment statistics, and productivity (Katsuyama, 2010; Oxford Economics, 2021). We therefore suggest there is an urgent need to look at these issues from a public safety perspective. This work could be achieved through collaboration between employers and regulators where the actions of licensees are documented in the patient record and their impact assessed in terms of patient outcomes that are then correlated with educational and conduct histories.

Limitations

While every attempt was made to identify relevant pieces of work, we were not able to digitally access some of the work conducted on sunrise reviews in some U.S. states and international jurisdictions. Some states have only digitized more recent work; as a result, some data may be missing. However, a relatively large sample of reports from a range of states and jurisdictions were obtained, and we believe that the analysis identified the key points as they relate to healthcare disciplines. Nonetheless, to develop a comprehensive model, we recommend that all sunrise reports based on any occupational group seeking regulation or change in scope would need to be collected, curated, and analyzed if legislators are to implement a consistent, transparent, and proportionate system of regulation.

Conclusions

Analysis of existing U.S. sunrise reviews and their equivalents in non-U.S. jurisdictions resulted in the identification of several best and promising practices. While no one jurisdiction is currently using all of these practices, there is potential to further improve the quality and transparency as well as potentially enhance the efficiency and effectiveness of current regimes by adopting or adapting these into current processes.

While there is a wealth of evidence in terms of the criteria that jurisdictions use to reach a determination on whether to regulate a discipline or extend their scope of practice, there is still considerable work needed to clearly identify, define, and quantify these criteria so they can be systematically mapped to the proportionate level of response needed (licensure, certification, registration, etc.) to protect the public and minimize economic or labor market harms.

The frameworks used by legislators clearly demonstrate they are conscious of the need to balance public safety with labor market dynamics. Some of the reports submitted by various occupational groups provide inadequate consideration of the specific harms that aberrant practice might cause. Where such evidence is missing or where the group is seeking to obtain licensure for professional advancement, there is evidence that legislature, in recent times, are more likely to reject said requests for licensure.

While this study focused on health-related disciplines, the inclusion of the entire data set of reviews of all occupations pursuing statutory regulation may help aid in the development of criteria mapping and the associated proportionate framework response. These aspects should be considered in subsequent work.

The Authors did not receive any payment for this work, nor do they perceive any conflict of interest.

References

- Allen Consulting Group. (2007). *A framework for considering the use of occupational licensing: Report to consumer affairs Victoria*. The Allen Consulting Group. <https://www.consumer.vic.gov.au/library/publications/resources-and-education/research/a-framework-for-considering-the-use-of-occupational-licensing-2007.pdf>
- American Legislative Exchange Council. (2019). *Occupational licensing review act (formally part of occupational board reform model act)*. <https://www.alec.org/model-policy/occupational-licensing-review-act-formerly-part-of-occupational-board-reform-model-act/>
- Australian Government Department of the Prime Minister and Cabinet. (2016). *Cost-benefit analysis* [Guidance note]. <https://www.pmc.gov.au/sites/default/files/publications/cosst-benefit-analysis.docx>
- Ayres, I., & Braithwaite, J. (1992). *Responsive regulation: Transcending the deregulation debate*. Oxford University Press.
- Ballantine, B., & Devonald, B. (2006). Modern regulatory impact analysis: The experience of the European Union. *Regulatory Toxicology and Pharmacology*, 44(1), 57–68. <https://doi.org/10.1016/j.yrtph.2005.06.016>
- Ballard, K., Haagenson, D., Christiansen, L., Damgaard, G., Halstead, J. A., Jason, R. R., Joyer, J. C., O'Sullivan, A. M., Silvestre, J., Cahill, M., Radtke, B., & Alexander, M. (2016). Scope of nursing practice decision-making framework. *Journal of Nursing Regulation*, 7(3), 19–21.
- Baugus, B., & Bose, F. (2015). *Sunset Legislation in the States: Balancing the legislature and the executive*. Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Baugus-Sunset-Legislation.pdf>
- Benton, D. C., & Alexander, M. A. (2017). Regulation 2030: First steps of a journey. *Journal of Nursing Regulation*, 8(2 Suppl), S1–S52.
- Benton, D. C., Cleghorn, J., Coghlan, A., Damgaard, G., Doumit, M. A. A., George, J. L., González-Jurado, M. A., Kwek, P.-E., Johansen, C., Msibi, G. S., Nyante, F., Owyer, E., Reed, C. M., Rodriguez, A., & Vogt, T. (2019). Acting in the public interest: Learnings and commentary on the occupational licensure literature. *Journal of Nursing Regulation*, 10(2 Suppl), S1–S40. [https://doi.org/10.1016/S2155-8256\(19\)30120-6](https://doi.org/10.1016/S2155-8256(19)30120-6)
- Benton, D. C., González-Jurado, M. A., & Beneit-Montesinos, J. V. (2013a). A structured policy review of the principles of professional self-regulation. *International Nursing Review*, 60(1), 13–22. <https://doi.org/10.1111/inr.12003>
- Benton, D. C., González-Jurado, M. A., & Beneit-Montesinos, J. V. (2013b). Defining nurse regulation and regulatory body performance: A policy Delphi study. *International Nursing Review*, 60(3), 303–312. <https://doi.org/10.1111/inr.12027>
- Benton, D. C., González-Jurado, M. A., & Beneit-Montesinos, J. V. (2014). Professional regulation, public protection and nurse migration. *Collegian*, 21(1), 53–59. <https://doi.org/10.1016/j.colegn.2013.01.001>
- Benton, D. C., & Morrison, A. (2009). *Regulation 2020: Exploration of the present, vision for the future*. International Council of Nurses.
- Benton, D. C., Thomas, K., Damgaard, G., Masek, S. M., & Brekken, S. A. (2017). Exploring the differences between regulatory bodies, professional associations, and trade unions: An integrative review. *Journal of Nursing Regulation*, 8(3), 4–11. [http://doi.org/10.1016/S2155-8256\(17\)30154-0](http://doi.org/10.1016/S2155-8256(17)30154-0)
- Benton, D. C., Watkins, M. J., Beasley, C. J., Ferguson, S. L., & Holloway, A. (2020). Evidence-based policy: Nursing now and the importance of research synthesis. *International Nursing Review*, 64(1), 52–60. <https://doi.org/10.1111/inr.12572>
- Berliner, D., Greenberg, D., Larkin, Jr, P. J., Neily, C., Nunn, R., Riches, J., & Wake, L. A. (2017). *Occupational licensing run wild*. Regulatory Transparency Project of the Federalist Society. <https://regproject.org/wp-content/uploads/RTP-State-Local-Working-Group-Paper-Occupational-Licensing.pdf>
- Bison, K. (2020, December 7). *Occupational licensure policy: Sunrise review processes by state*. The Council of State Governments. <https://licensing.csg.org/sunrise-review-processes-by-state/>
- Carpenter, II, D. M., Knepper, L., Sweetland, K., & McDonald, J. (2020). *License to work: A national study of burdens from occupational licensing* (2nd ed.). Institute for Justice. https://ij.org/wp-content/themes/ijorg/images/ltw2/License_to_Work_2nd_Edition.pdf
- Colorado Department of Regulatory Agencies Office of Policy & Research. (1994). *Sunrise review of hemodialysis technicians*.
- Commissioner for Better Regulation. (2014a). Hints and tips on preparing a regulatory impact statement (RIS) or a legislative impact assessment (LIA). <https://www.vic.gov.au/sites/default/files/2019-10/Hints-and-tips-for-preparing-a-RIS-or-BIA.pdf>
- Commissioner for Better Regulation. (2014b). Multi-criteria analysis (MCA) [Guidance note]. <https://www.vic.gov.au/sites/default/files/2019-10/Guidance-note-Multi-Criteria-Analysis-MCA.pdf>
- The Council of State Governments. (2020a). *Occupational licensure: Interstate compacts in action*. https://licensing.csg.org/wp-content/uploads/2020/01/OccupationalInterstateCompacts_InAction_Update_Jan_2020_2.0.pdf
- The Council of State Governments. (2020b). *Occupational licensure sunrise legislation across states*. <https://licensing.csg.org/wp-content/uploads/2020/12/Sunrise-Review-Processes-by-State-Resource.pdf>
- Deloitte & Touche LLP. (2012). *Thought leadership in ERM: Risk assessment in practice*. Committee of Sponsoring Organizations of the Treadway Commission. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Governance-Risk-Compliance/dttl-grc-riskassessmentinpractice.pdf>
- Department for Business Innovation and Skills. (2011). Impact assessment toolkit: A guide to undertaking an impact assessment (IA) and completing the IA template. https://www.legislationline.org/download/id/3642/file/UK_Impact%20Assessment%20Toolkit_2011.pdf
- Department for Communities and Local Government. (2009). Multi-criteria analysis: A manual. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/191506/Multi-crisis_analysis_a_manual.pdf
- Department of the Taoiseach. (2009). Revised RIA guidelines: How to conduct a regulatory impact analysis. https://govacc.per.gov.ie/wp-content/uploads/Revised_RIA_Guidelines_June_2009.pdf
- Department of the Treasury Office of Economic Policy, Council of Economic Advisers, & Department of Labor. (2015). *Occupational Licensing: A Framework for Policymakers*. The White House. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf

- Drake, M. (2019, August 27). *Review and oversight of occupational licensing laws and rules*. Occupational Licensing and Certification Laws Interim Committee. https://legislature.idaho.gov/wp-content/uploads/sessioninfo/2019/interim/190827_olcl_03_DRAKE_SunriseSunset.pdf#:~:text=Permanent%20oversight%20is%20ongoing%2C%20routine%20monitoring%20and%20review,laws%20or%20rules%20subject%20to%20review%20each%20year
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, 4(1). <https://doi.org/10.1177/2158244014522633>
- European Commission. (2010, August 10). *Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions: Smart Regulation in the European Union*. http://aei.pitt.edu/43035/1/com2010_0543.pdf
- Gittleman, M., Klee, M. A., & Kleiner, M. M. (2015). *Analyzing the labor market outcomes of occupational licensing* (Working paper 20961). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w20961/w20961.pdf
- Grace, J. (2020, January 16). 'Sunrise review' would inform legislators about impact of proposed occupational licenses. *The Badger Institute*. <https://www.badgerinstitute.org/News/2019-2020/Sunrise-review-would-inform-legislators-about-impact-of-proposed-occupational-licenses.htm>
- Gunn, E. (2020). Occupational licenses: Consumer safeguards or job barrier? *Wisconsin Examiner*. <https://wisconsinexaminer.com/2020/01/09/occupational-licenses-consumer-safeguard-or-job-barrier/>
- Gunningham, N. (2015). *Compliance, enforcement, and regulatory excellence*. University of Pennsylvania Penn Program on Regulation. <https://www.law.upenn.edu/live/files/4717-gunningham-ppr-bicregulordiscussionpaper-06>
- Hahn R. W., Burnett, J. K., Chan, Y.-H. I., Mader, E. A., & Moyle, P. R. (2020). Assessing the quality of regulatory impact analyses. *The Harvard Journal of Law and Public Policy*, 23(23). <https://doi.org/10.2139/ssrn.213854>
- Hahn, R. W., & Litan, R. E. (1997). *Improving regulatory accountability*. American Enterprise Institute for Public Policy Research and The Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/06/01_Regulatory_Litan.pdf
- Health Practitioner Regulation National Law Act 2009. (2010, Queensland, Australia). <https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2009-045>
- Health Practitioners Competence Assurance Act, Pub. Act 2003 No. 48 (2003, New Zealand). <https://www.legislation.govt.nz/act/public/2003/0048/latest/DLM203312.html>
- Health Professions Act, Rev. Stat. c. H-7. (2000, Alberta, Canada). https://www.qp.alberta.ca/1266.cfm?page=H07.cfm&leg_type=Acts&isbncln=9780779823116
- Health Professions Regulatory Advisory Council. (2011). *Regulation of a new health profession under the Regulated Health Professions Act (RHPA), 1991*. https://www.hprac.org/en/reports/resources/RegulatingaNewProfession_CriteriaProcess_Nov2011.pdf
- Health Workforce, New Zealand Ministry of Health. (2003). *Guidelines: Applying for regulation under the Health Practitioners Competence Assurance Act 2003*. Government of New Zealand. <https://www.health.govt.nz/system/files/documents/pages/applying-for-regulation-under-the-hpca-2003-031220.pdf>
- Hentze, I. (2018). Improving occupational licensing with sunrise and sunset reviews. *LegisBrief*, 26(25), 1–2. https://www.ncsl.org/Portals/1/Documents/legisbriefs/2018/July/LB_OccuLic_July2018.pdf
- Hentze, I., & Herman, Z. (2021). State efforts to improve occupational licensing mobility. *LegisBrief*, 28(1), 1–2. https://www.ncsl.org/Portals/1/Documents/legisbriefs/2021/MarchLBs/Licensing_Mobility.pdf
- International Centre for Policy Advocacy. (2017). *An essential guide to writing policy briefs*. https://www.icpolicyadvocacy.org/sites/icpa/files/downloads/icpa_policy_briefs_essential_guide.pdf
- International Labour Organization. (2008). *Part III: Definitions of major groups, sub-major groups, minor groups and unit groups. International Standard Classification of Occupations ISCO-08*. <http://www.ilo.org/public/english/bureau/stat/isco/docs/groupdefn08.pdf>
- Ivec, M., Braithwaite, V., Wood, C., & Job, J. (2015). *Applications of responsive regulatory theory in Australia and overseas: Update*. Regulatory Institutions Network, Australian National University. http://regnet.anu.edu.au/sites/default/files/publications/attachments/2015-05/Occasional%2520Paper%252023_Ivec_Braithwaite_0.pdf
- Jacobs and Associates. (2011). *Implementing RIA: benefits, challenges, and best practices*. Asia-Pacific Economic Cooperation. http://mddb.apec.org/documents/2011/EC/WKSP2/11_ec_wksp2_006.pdf
- Johnson, E. (2016). *Occupational licensing and women Entrepreneurs in Missouri: A report to the Women's Foundation*. Institute of Public Policy, University of Missouri. <https://static1.squarespace.com/static/545815dce4b0d75692c341a8/t/582b2125e4fc544bebfd651e/1479221544420/OL+and+Women+Entrepreneurs+in+MO++Final+11.14.16.pdf>
- Johnson, J. E., & Kleiner, M. M. (2017). *Is occupational licensing a barrier to interstate migration?* (Working paper 24107). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w24107/w24107.pdf
- Katsuyama, N. (2010). The economics of occupational licensing: Applying antitrust economics to distinguish between beneficial and anti-competitive professional licenses. *Southern California Interdisciplinary Law Journal*, 19(3), 565–588. <https://gould.usc.edu/why/students/orgs/ilj/assets/docs/19-3%20Katsuyama.pdf>
- Keynes, J. M. (1931). *Essays in Persuasion*. Macmillan & Co. Ltd.
- Kleiner, M. M. (2006). *Licensing occupations: Ensuring quality or restricting competition*. W. E. Upjohn Institute for Employment Research. https://research.upjohn.org/cgi/viewcontent.cgi?article=1034&context=up_press
- Kleiner, M. M. (2015). *Reforming occupational licensing policies* (Discussion paper 2015-01). The Hamilton Project. https://www.brookings.edu/wp-content/uploads/2016/07/reform_occupational_licensing_policies_kleiner_v4.pdf
- Koumenta, M., & Pagliero, M. Occupational regulation in the European Union: Coverage and wage effects (special issue). *British Journal of Industrial Relations*, 57(4), 818–849. <https://doi.org/10.1111/bjir.12441>
- Mandelkern Group. (2001). *Mandelkern Group on Better Regulation Final Report*. United Kingdom Government. https://www.legislationline.org/download/action/download/id/2239/file/EU_MandelkernGroup_BetterReg_2001.pdf
- Manitoba Health. (2021). *Application process for requests for self-regulation under the Regulated Health Professions Act*. https://www.gov.mb.ca/health/rhpa/docs/application_process.pdf

- Meehan, B., Timmons, E., & Meehan, A. (2017). *Barriers to mobility: Understanding the relationship between growth in occupational licensing and economic mobility*. Archbridge Institute. <https://archbridgeinst.wpengine.com/wp-content/uploads/2017/11/Barriers-to-Mobility.pdf>
- Ministry of Health. (2010). *How do we determine if statutory regulation is the most appropriate way to regulate health professions?* [Discussion document]. <https://www.health.govt.nz/system/files/documents/publications/statutory-regulation-health-professions-discussion-document-jan10.pdf>
- Morikawa, M. (2018). Occupational licenses and labor market outcomes in Japan. *Japan and the World Economy*, 48(7), 45–56. <http://doi.org/10.1016/j.japwor.2018.07.002>
- National Conference of State Legislatures. (2019). *The evolving state of occupational licensing: Research, state policies and trends* (2nd ed.). https://www.ncsl.org/Portals/1/Documents/employ/Occu-Licensing-2nd-Edition_v02_web.pdf
- National Council of State Boards of Nursing. (n.d.). 2020–2022 NCSBN strategic plan. <https://www.ncsbn.org/strategic-plan.htm>
- New Zealand Institute of Economic Research. (2019). *Regulatory management toolkit*. https://think-asia.org/bitstream/handle/11540/11724/nzier_wp_2019-3_regulatory_management.pdf?sequence=1
- Nunn, R. (2016). *Occupational licensing and American workers*. The Hamilton Project. https://www.brookings.edu/wp-content/uploads/2016/07/occupational_licensing_and_the_american_worker.pdf
- Obama White House. (2011). *Regulatory impact analysis: A primer*. https://obamawhitehouse.archives.gov/sites/default/files/omb/info/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf
- Organisation for Economic Co-operation and Development. (1997). *Regulatory impact analysis: Best practices in OECD countries*. <https://www.oecd.org/gov/regulatory-policy/35258828.pdf>
- Organisation for Economic Co-operation and Development. (2005). *OECD guiding principles for regulatory quality and performance*. www.oecd.org/fr/reformereg/34976533.pdf
- Organisation for Economic Co-operation and Development. (2009). *Regulatory impact analysis: A tool for policy coherence*.
- Organisation for Economic Co-operation and Development. (2020a). *OECD best practice principles for regulatory policy: Regulatory impact assessment*. <https://www.oecd-ilibrary.org/sites/7a9638cb-en/index.html?itemId=/content/publication/7a9638cb-en>
- Organisation for Economic Co-operation and Development. (2020b). *Product market regulation: A detailed explanation of the methodology used to build the OECD PMR indicators*. https://www.oecd.org/competition/reform/A%20detailed%20explanation%20of%20the%20methodology%20used%20to%20build%20the%20OECD%20PMR%20indicators_FINAL.pdf
- Oxford Economics. (2021). *Valuing professional licensing in the US: A report for the alliance for responsible professional licensing*. http://www.responsiblelicensing.org/wp-content/uploads/2021/02/ARPL_Jan2021.pdf
- Parfitt, A. (2017). *U.S. licensing system*. The Council of State Governments. <http://knowledgecenter.csg.org/kc/system/files/Parfitt2017.pdf>
- Professional Standards Authority. (2015). *Rethinking regulation*. <https://www.professionalstandards.org.uk/docs/default-source/publications/thought-paper/rethinking-regulation-2015.pdf>
- Professional Standards Authority. (2016). *Right-touch assurance: A methodology for assessing and assuring occupational risk of harm*. [https://www.professionalstandards.org.uk/docs/default-source/publications/right-touch-assurance---a-methodology-for-assessing-and-assuring-occupational-risk-of-harm-\(october-2016\).pdf?sfvrsn=f21a7020_0](https://www.professionalstandards.org.uk/docs/default-source/publications/right-touch-assurance---a-methodology-for-assessing-and-assuring-occupational-risk-of-harm-(october-2016).pdf?sfvrsn=f21a7020_0)
- Professional Standards Councils. (2017a). *Professional standards scheme: Application guidelines*. https://psc.gov.au/sites/default/files/Application%20Guidelines_2017.pdf
- Professional Standards Councils. (2017b). *Application template for a professional standards scheme*. https://psc.gov.au/sites/default/files/Application%20Template_2017.pdf
- Professional Standards Authority. (2018). *Right-touch regulation in practice: International perspectives*. https://www.professionalstandards.org.uk/docs/default-source/publications/thought-paper/right-touch-regulation-in-practice---international-perspectives.pdf?sfvrsn=a5b97520_8
- Redbird, B. (2017). The new closed shop? The economic and structural effects of occupational licensure. *American Sociological Review*, 82(3), 600–624. <https://doi.org/10.1177/0003122417706463>
- Regulated Health Professions Act, S.O. 1991, c. 18 (1991, Ontario, Canada). <https://www.ontario.ca/laws/statute/91r18>
- The Regulated Health Professions Act, S.M. 2009, c. 15 (2009, Manitoba, Canada). <https://web2.gov.mb.ca/laws/statutes/2009/c01509e.php>
- Robert, S. C., Robert, H. M., Evans, W. J., Honemann, D. H., Balch, T. J., Seabold, D. E., Gerber, S. (2020) *Robert's Rules of Order* (Newly Revised 12th ed.) New York, N.Y. Public Affairs, Hachette Book Group.
- Rooney, A. L., & van Osternberg, P. R. (1999). *Licensure, accreditation, and certification: Approaches to health services quality*. The Quality Assurance Project. https://pdf.usaid.gov/pdf_docs/PNACF510.pdf
- Ross, J. K. (2017) *The inverted pyramid: 10 less restrictive alternatives to occupational licensing*. Institute for Justice. https://ij.org/wp-content/uploads/2017/11/Inverted-Pyramid_FINAL_cover.pdf
- Roth, C., & Ramlow, E. (2016). *Fencing out opportunity: Occupational licensing in the Badger State*. The Wisconsin Institute for Law & Liberty. <https://bloximages.chicago2.vip.townnews.com/lacrossetribune.com/content/tncms/assets/v3/editorial/e/9f/e9f4928d-89ff-5494-8eba-5e530ebf62ad/5830f92463e88.pdf.pdf>
- Schmitt, K. (2018). *Questions a legislator should ask* (3rd ed.). The Council on Licensure, Enforcement and Regulation.
- School of Medicine Bowen Center for Health Workforce Research & Policy. (2019, October 17). *National summary of sunrise review statutes*. Indiana University School of Medicine. <https://scholarworks.iupui.edu/bitstream/handle/1805/21237/National%20Summary%20of%20Sunrise%20Review%20Statutes.pdf?sequence=4&isAllowed=y>
- Shimberg, B., & Roederer, D. (1994). *Questions a legislator should ask* (2nd ed.). The Council on Licensure, Enforcement and Regulation.
- Skorup J., & Hemphill, T. (2020). *How to analyze occupational licensing laws: A model review process*. Mackinac Center for Public Policy. <https://www.mackinac.org/archives/2020/s2020-02.pdf>
- Spector, N., Silvestre, J., Alexander, M., Martin, B., Hooper, J. I., Squires, A., & Ojemeni, M. (2020). NCSBN regulatory guidelines and evidence-based quality indicators for nursing education programs. *Journal of Nursing Regulation*, 11(2 Suppl.), S1–S64. [https://doi.org/10.1016/S2155-8256\(20\)30075-2](https://doi.org/10.1016/S2155-8256(20)30075-2)

- Stephen, F. H., & Love, J. H. (1999). 5860: Regulation of the legal profession. *Encyclopedia of Law and Economics* (A. Marciano & G.B. Ramello, Eds.). Springer Publishing. <https://reference.findlaw.com/lawandeconomics/5860-regulation-of-the-legal-profession.pdf>
- Stroňová, K. (2014). Analyzing scientific knowledge in documents: The case of regulatory impact assessment. *Human Affairs*, 24(3), 299–306. <http://doi.org/10.2478/s13374-014-0228-7>
- Styles, M., & Affara, F. (1986). *Report of the regulation of nursing: A report on the present, a position for the Future*. International Council of Nurses.
- Sugano, D. (2002). *Sunrise reviews: Regulatory structures and criteria*. Legislative Reference Bureau. https://lrb.hawaii.gov/wp-content/uploads/2002_SunriseReviews.pdf
- Taylor, W. J. (2016). Pros and cons of conjoint analysis of discrete choice experiments to define classification and response criteria in rheumatology. *Current Opinion in Rheumatology*, 28(2), 117–121. <https://doi.org/10.1097/BOR.0000000000000259>
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237–246. <http://doi.org/10.1177/1098214005283748>
- U.K. Commission for Employment and Skills. (2013). *Understanding Occupational Regulation* [Evidence Report 67]. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/305443/evidence-report-67-understanding-occupational-regulation.pdf
- von Rueden, C., & Bambalaite, I. (2020). *Measuring occupational entry regulations: A new OECD approach* [Economics department working papers No. 1606]. Organisation for Economic Co-operation and Development. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2020\)14&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2020)14&docLanguage=En)
- The White House. (2015). *Occupational licensing: A framework for policymakers*. Department of the Treasury Office of Economic Policy, the Council of Economic Advisers, and the Department of Labor. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf
- Washington State Department of Health (2004) Information Summary and Recommendations: Dental Care Scope of Practice Sunrise Review. Olympia, WA. Office of the Assistant Secretary Washington State Department of Health. <https://www.doh.wa.gov/portals/1/Documents/2000/dental.pdf>
- Wisconsin Institute for Law and Liberty. (2017, January 23). *Will applauds Gov. Walker's occupational licensing reform proposal* [Press release]. <https://www.will-law.org/will-press-release-will-applauds-gov-walkers-occupational-licensing-reform-proposal/>
- World Health Organization. (2012). *How to construct a discrete choice experiment for health workforce recruitment and retention in remote and rural areas: A user guide with case studies*. https://www.who.int/hrh/resources/DCE_UserGuide_WEB.pdf?ua=1
- World Health Organization. (2014). *WHO handbook for guideline development* (2nd ed.). https://apps.who.int/iris/bitstream/handle/10665/145714/9789241548960_eng.pdf

Appendix

APPENDIX A

Exploration of Thematic Content Generated via NVIVO Auto Coding

Theme	Description and Elaboration of Associated Subtheme	Commentary
Agency	<p>Agency purpose – Many of the references seek to specify the scope and purpose of the agency involved in either overseeing the sunrise process, submitting the request, or providing accreditation services to educational programs.</p> <p>Procedural compliance – Several of the extracted citations offer details on the procedural steps that need to be followed in the submission of a sunrise review request or in the conduct of the formal review itself.</p> <p>Agency alignment – Explores how any new regulatory board or agency would impact or be at variance with or duplicate the activities and responsibilities of already existing agencies.</p>	Provides useful descriptions in terms of the purpose and procedures that existing agencies follow. In particular, the work can help inform the design of an exemplar <i>sunrise process</i> .
Appropriate	<p>The term <i>appropriate</i> is used extensively in many of the reports but frequently omits a precise operational definition. An alternative approach found in the reports is the use of the phrase <i>characterized by</i>, which offers more precision. Clauses using <i>appropriate</i> often refer to behaviors, resource use, knowledge, or standards. An example of content that provides an operational definition can be found in the sunrise report by Colorado when considering the 1994 hemodialysis technicians' application, as follows: <i>The delegating nurse shall be solely responsible for determining the required degree of supervision the delegatee will need, after an evaluation of the appropriate factors which shall include but not be limited to the following: (a) The stability of the condition of the patient; (b) The training and ability of the delegatee; (c) The nature of the nursing task being delegated; and (d) Whether the delegated task has a predictable outcome (Colorado Department of Regulatory Agencies, 1994).</i></p>	An explicit statement of what is required rather than the word <i>appropriate</i> better ensures transparency of the decision-making process and provides more guidance to any board that is subsequently approved to regulate the discipline. Statements may include, but are not limited to, information on required knowledge, skills, behavior, or resources that would result in the minimal safe practice.
Assistants	<p>Differentiation – As healthcare needs have changed and the range of interventions has expanded, disciplines have sought to delegate less complex activities to assistive roles. Over time, the issue as to whether these roles need to be regulated either as separate disciplines or as part of the original discipline that carved off the various activities to be completed is raised.</p> <p>Overlaps – As multiple regulated disciplines sought to establish assistive roles, it has been noted that while the originating discipline may be distinct and different, the assistive roles often have substantially overlapping competencies.</p> <p>Supervision – There is usually discussion on how the tasks are delegated and supervised when establishing assistive roles. It is often the degree of supervision or autonomy that the assistant can exercise along with the potential to cause harm that informs the need to consider regulating these assistive roles.</p>	<p>This is an increasingly complex and crowded space as assistive roles are driven on a discipline-by-discipline basis, and as such, coherence and divergence are present at this time. There is a need to look at the use and regulation of assistive personnel from a patient-centered perspective rather than a model that simply perpetuates hierarchical control.</p> <p>The current overlapping model misses opportunities to standardize education and regulatory protections as well as potentially devise a step-on and step-off career ladder progression system.</p> <p>As team care delivery becomes increasingly the norm, the need to revisit the role of assistive personnel and how they are regulated becomes more urgent.</p>

Theme	Description and Elaboration of Associated Subtheme	Commentary
Board	Purpose – Provides information on the responsibilities and purpose of the regulatory board.	This information is well documented in a range of model acts and rules; however, with the rapidly changing nature of healthcare delivery, the need to ensure that any legislation can respond to such changes in an agile and speedy manner warrants further exploration.
	Performance – Highlights the need to ensure that the board is executing its powers effectively and efficiently; however, it is noted that the data to make such judgments may not be readily available. This includes broader considerations such as the number of licensees and whether that number would warrant the establishment of a separate agency and if the agency would have sufficient funds to be self-sustaining.	This is an increasingly important issue and is at the heart of the intent to develop, through Objective 1 of the current NCSBN strategic initiatives, an accreditation system to obtain valid reliable and comparable data. The content of the references points to some of the measures that should be included in a comprehensive accreditation system.
	Structure and composition – Explores how the board is established, its degree of autonomy, and the composition of its members. Highlights concerns that boards dominated by industry members may be less focused on the prevention of harm and more inclined to promote the needs of the group being regulated.	While there has been some research looking at the structure of agencies and the composition of their boards, further research is needed to identify optimum structures, composition, and performance.
Care, Health, & Healthcare	There are no subthemes associated with these frequently cited references. The stem word <i>care</i> is often associated with a wide range of prequalifiers such as <i>acute, critical, follow-up, health, holistic, specialized,</i> and <i>primary,</i> as well as post-qualifiers such as <i>team</i> and <i>provision.</i> As would be expected when looking at sunrise reports associated with health disciplines, the term <i>care</i> appears regularly describing symptoms, interventions, needs, and outcomes.	This theme is a frequently occurring term used to anchor many of the proposals associated with the regulatory requests being made and does not provide key analytical information.
Certification	Certifying agency – Describes the characteristics and key intents of a certifying agency; namely, that it should be national; independent of the practitioners seeking certification; able to confer a certificate that is synonymous with a well-educated and safe practitioner; able to specify curriculum content; able to produce and administer a valid, reliable, and legally defensible certification process; and able to provide a publicly available database to enable service users or employers to confirm the certification status of a practitioner.	While there have been attempts in the past to document the differences between different approaches to regulation, there is scope to update this work and link it to part of a toolkit that could be produced for legislators and those new to regulatory bodies (both staff and board members). The work by Rooney and van Ostenberg (1999) is dated but does offer a potential starting point for further exploration.
	Certification process – Provides information on the requirements for an individual to obtain a certificate. Some of these elements are like the requirements for licensure or registration while others are different. For certification, this process includes completing approved education, gaining required experience and/or completion of a period of supervised practice, obtaining letters of recommendation, having no relevant criminal history, successfully completing an examination, and paying the required fee.	
	Certification definition – The following operational definition is cited in several sunrise reports: “Certification is the process by which a governmental or non-governmental agency or association grants authority to use a specified title to an individual who has met predetermined qualifications.”	
	Labor market effects – As certification is a less restrictive form of regulation, several reports explore and highlight the labor market impacts and the advantages of this over licensure when considering a regulatory response.	

Theme	Description and Elaboration of Associated Subtheme	Commentary
Clinical	<p>Content – Specifies the clinical experience required to complement theoretical content to provide an opportunity to gain practice in the delivery of minimal competence performance. For some disciplines, the level of the content is also specified and/or additional content material above and beyond the baseline qualification for initial licensure.</p> <p>Efficacy – Highlights the need to ensure that if a clinical intervention is to be included in the scope of practice of a new or revised discipline, then the quality and efficacy of treatment should be of at least the same standard as the traditional practitioner’s service.</p> <p>Quantity – Documents the minimum number of hours required of interventions needed to meet the required clinical standards of the program.</p> <p>Modality – Provides details on the modality and settings that can be used to gain clinical experience as required by the program accreditation standards. The modality may include an internship, fieldwork, preceptorship, or faculty-supervised clinical experience.</p>	<p>It is clear from the variations across different jurisdictions that there is the potential through the evaluation of natural experiments to generate information and evidence that may lead to the identification and specification of optimal clinical content, efficacy, quantity, and modalities.</p>
Education & Training	<p>Initial education – Provides information on the level, content, and duration of the required education that needs to be completed prior to application for a license.</p> <p>Postgraduate education – Prescribes the level, content, and duration of programs that lead to an advanced level of practice that may or may not entail a further or additional license.</p> <p>Continuing education – Documents the requirements that a licensee needs to meet before applying for renewal of their license.</p> <p>Educational program accreditation – Requires educational programs leading to a professional license to be accredited by a relevant educational or professional body.</p>	<p>It is unclear as to how the content of these two themes impacts the safety of the practitioner in delivering the service to their client/patient, although many assertions are made in this regard. As current systems tend to look at complaints and the percentage of individuals coming through this process is small (~1%), it is difficult to assess the effectiveness of the education provided, particularly when these complaints are distant in time from the initial education provided to the practitioner. More dynamic and data-driven approaches should be developed in the future.</p>
Examination & Testing	<p>Developing and administration – Covers the source of any examination used to provide the assessment of minimal competence on completion of an approved program of education.</p> <p>Security and integrity – Identifies the characteristics of any examination used for high-stakes testing (reliable, valid, legally defensible) and the process to be followed by candidates to ensure the security and integrity of the examination is not compromised and the psychometric qualities of the examination can be relied upon.</p>	<p>Limited information is provided on how the minimal level of competence is set in several of the applications, and this potentially represents a key metric for determining whether a proportionate approach to testing is taking place.</p> <p>Highlights the need to ensure that an equitable approach to testing is taken (an issue that is gaining increased attention).</p>
Experience	<p>Clinical – Many of the references focus on a prescribed number of hours of clinical experience working in a clinical setting and delivering services.</p> <p>Diversity – Some of the references to experience provide a detailed breakdown of the client groups the candidate needs to work with or the specific interventions the client groups need to practice as part of the required content of their education programs.</p> <p>Supervision – Sometimes the experience requires oversight or supervision, and on other occasions the candidate can gain the required experience as part of an established team.</p>	<p>The impact of experience, the quantum required, the diversity of content, and the mix and approach to supervision is not adequately explored if an informed judgment to the proportionate regulatory response is to be selected.</p>

Theme	Description and Elaboration of Associated Subtheme	Commentary
Genetic	History and role -The National Society of Genetic Counselors has made a concerted effort to gain licensure for several years.They provided a wide range of resources, including a set of model legislative provisions used by state-based groups seeking regulation. Because of activity in multiple jurisdictions and the use of consistent language in the group's advocacy efforts, the auto coding system identified a range of issues associated with the term <i>genetic</i> , including information on the history, definition, and roles performed by practitioners.	This theme gives credence to the arguments made by some regulatory theorists that it is the profession and not the public that pursues regulatory status for a particular discipline.
Group	Occupations – References relate to the various occupations, disciplines, or professions seeking sunrise review. The information provides contextual, numeric, and practice information about the group. Clients – Some references describe the client or patient group that the discipline is seeking to help.This includes descriptions of the problems that the client or patient experiences and how the occupation may address these.	This subtheme is simply a collective term and does not provide key analytical information.
Hours	Program duration – Specifies the length of the education program before the individual will be eligible to obtain their regulated status.This can include details of theoretical and clinical/experiential hours. Licensure duration – Highlights the time a license is issued for or is valid until additional licensure requirements need to be met. Relicensure requirements – Stipulates the duration and in some cases the content of additional continuing professional development activities to be completed prior to re-validation or relicensure.	Highlights that even within a single discipline there can be considerable variation in the length and content of programs. Raises the question as to what impact such variations can have in the harm that a licensee may present. The duration of an initial license can vary from 1 to 3 or more years, and it is unclear whether such variation offers any benefit in public protection. Links to the Education & Training theme and associated subtheme Continuing Education. It is unclear whether such requirements result in safer practice of the licensee.
Information	This general theme embraces a wide range of issues where the term is used to simply refer to data provided, where it can be obtained, or sources that it has been received from.	This highly diverse theme does not provide key analytical information.
Law	Powers –There are a wealth of references that specify the powers being advanced in legislative proposals, and there is a tendency to compare how other jurisdictions have dealt with these issues. At the heart of these issues is an examination of whether the prescribed powers address a focus on harm reduction. Alternatives and alignment – Some references highlight the need to ensure that any proposed laws are consistent and aligned with existing state and federal law. On occasions, references identify the issue that the proposed legislation is seeking to remedy and can already be dealt with through existing statutes. Inflexibility – References note that the way legislation is framed often blocks needed change as practice evolves and health demands change.	This is very much in alignment with the general purpose of legislative action found in the Sunrise theme. A sunrise application in Washington State Department of Health (2004) looking at dental scope-of-practice issues consolidated the oral health professions legislation into a single law book. In some legislation in the United Kingdom, additional references to other legislation impacted by the proposed law are contained in review reports. Such practices could be considered promising practice to ensure coherence and avoid unforeseen future conflict. As noted in the comments regarding differentiation of personnel in the subtheme of Assistants, there appears to be a need to frame legislation that can be more responsive to the needs of patient-driven regulation.
Level	This is a very eclectic theme that embraces a wide range of issues, academic level of programs and preparation, political level of regulatory action (state and federal), level of services being offered, and level of outcomes that a user of any service can expect.	This highly diverse theme does not provide key analytical information currently. However, in the future, if a data lake of education, examinations, political level, and patient outcome could be assembled, it may be possible to determine optimum levels of the various components needed to achieve certain patient outcomes.

Theme	Description and Elaboration of Associated Subtheme	Commentary
Licensure & Licensed	<p>Regulatory functions – Provides information on the wide range of functions, mechanisms, powers, and responsibilities that a regulatory body can exercise in the licensure and/or removal of a practitioner. This encompasses setting education, practice and conduct standards, the power to set and hold examinations, protection of title, disciplinary procedures and powers, definition of scope of practice, requirements and levels of licensure, formulation of rules, specification of fees, education program approval, grandfathering provisions, authority to seek criminal background checks, entry requirements, continuing competence requirements, and setting ethical codes.</p> <p>Licensure definition – Multiple reports provide a less than helpful definition of licensure as it focuses on the labor market aspects of the regulatory approach, stating, “Licensure confers a monopoly upon a specific profession whose practice is well defined.”</p>	<p>References to these functions are addressed under the subtheme of Powers under the general theme of Law.</p> <p>A more informative and expansive definition that highlights the purpose of licensure may be more informative to potential users of a service.</p>
Medicine & Physician	<p>Definition of practitioner – Provides both generic definitions of physician and the practice of medicine as well as more specifically defined classes of physician such as naturopathic physician or more narrowly defined classes of medicine such as chiropractic medicine, osteopathic medicine, oriental medicine, etc.</p> <p>Defensiveness and oversight – Seeks to defend the status quo and protect the delivery of certain interventions to those that currently provide them or to ensure that control on the practice is maintained by the existing cadre of practitioners through requirements for direct or indirect supervision of the other discipline.</p>	<p>It is important to note that such definitions come from terms already enshrined in legislation or those proposed by the professional associations advocating for the establishment of the regulatory regime.</p> <p>With the advent of the North Carolina Dental Board case heard by the U.S. Supreme Court, the issue of restrictive practice has gained considerable attention, particularly if the regulatory board is controlled by active market participants. The need to ensure that any such restrictive measures are necessary based on reduction of harm is a key point for consideration by any sunrise review process.</p>
Nurse	<p>This theme applies in a multitude of contexts. In some cases, it is the nurse who is seeking expansion of scope or recognition for specialist skills. In other cases, nurses are part of an impacted group when other disciplines are seeking regulation or are part of a team that shares competencies with other regulated and non-regulated disciplines.</p>	<p>Due to the diversity of use of this theme, it does not on its own offer any specific analytical insights; however, it could be used to identify how the discipline of nursing is evolving in a regulatory regime as it relates to scope of practice if material from both sunrise and sunset reports were combined. In this case, the theme could be used to extract all material relating to nursing and a subsequent study could analyze the material.</p>
Occupational	<p>Police power – Highlights that the purpose of the 10th amendment of the U.S. Constitution is to enable states to take what necessary action is needed to protect the citizens of that state. To this end, it is repeatedly stated that any regulation of a particular occupation must meet the test that without regulation the occupation represents an acknowledged and quantifiable harm. Increasingly, the requirement that such measures should be proportionate to the harm and should be the least intrusive needed to minimize the risk of harm is noted.</p>	<p>Debate on this issue can also be found in relation to the Regulation, Certification, Law, and Sunrise themes.</p>

Theme	Description and Elaboration of Associated Subtheme	Commentary
Profession & Professional	<p>Recognition – Contains content on the criteria associated with becoming or evolving into a profession, defined knowledge base, autonomy and independent judgement, prescribed education, program accreditation, and licensure. Some groups argue they should be licensed because some of the criteria for being a profession are met. The states counter this argument by saying their mandate is not the promotion of a profession but rather protection of the public.</p>	<p>Many states do have as a first step in the sunrise review process a robust screening process to ensure that the request for a sunrise review meets clearly defined criteria. Because of this screening, several requests are rejected without moving to an expansive review of the evidence.</p>
	<p>Overlaps in scope – This is a second subtheme linked to the above misinterpretation of the purpose of a sunrise review process and connected to the issue of regulatory theory. Multiple references were identified that highlighted confusion and overlaps between different disciplines and the impetus for the change being driven by their needs for recognition of the new professional group and resolution of tensions and conflicts between existing disciplines. In some submissions, the evolution of the discipline emerged from a codification of certain interventions into a role that was supportive of the parent discipline and where there existed labor market shortages. On occasion, attempts to reconcile these debates are accompanied and exacerbated by competing interests of the various groups and are often focused on control, economic benefit, and recognition.</p>	<p>This raises a fundamental issue about the basis of public protection when increasingly it is recognized that in healthcare delivery there are often overlapping and shared competencies used by different disciplines. In such cases, the existing model of protection of title, use of controlled activities or scope of practice may require revision if public protection is to be the prime focus.</p>
	<p>Discipline autonomy – Linked to the issue of overlaps in scope, who provides direction for the profession also emerged where there is a single profession dominating the membership of a particular board tasked with overseeing two or more groups, often when the second and subsequent groups have emerged from within the original scope of the dominant group.</p>	<p>Perhaps because of the Recognition subtheme issues, and the Overlaps in Scope subtheme tensions, this subtheme is inevitable. However, if the focus of the board remains on governance function and the efficiency and effectiveness of meeting the public protection mandate, then this need not be the case.</p>
Patient	<p>Contributions – Various disciplines or applicant occupations highlight the impact and contribution that the group can make on the patient or client group seeking their services.</p>	<p>The degree to which these statements are supported by evidence varies. In no case does the presentation follow the requirements for evidence-based policy change set out by the World Health Organization (2014) on their recommendations for the synthesis and grading of evidence. This represents a gap in process and could be included as part of a comprehensive training package for those tasked with conducting sunrise reviews.</p>
	<p>Existing gaps – Closely associated with the Contributions subtheme above is the potential gap in service that the new discipline could meet either by becoming a regulated profession or by amending their existing scope of practice to include the services to be offered. Applicant groups sometimes frame this by identifying a particular problem that the client experiences; by addressing this issue, improvements in safety, quality of care, and cost efficiencies may be realized. In such cases, the applicant discipline argues that the discipline is or could be educated to do so and that they would be capable of delivering the service safely.</p>	<p>These identified gaps could be used to inform subsequent sunset reviews if the legislature decides to move ahead with a regulatory model. The retrospective analysis of how these gaps have been addressed by the implemented regulatory solution would help inform whether the solution has been effective and complies with a proportionate response criterion.</p>

Theme	Description and Elaboration of Associated Subtheme	Commentary
Physical	Intervention – Contains a wide range of content and is often the qualifier for a type of intervention such as physical therapy, treatment, diagnosis, examination, activity, etc.	Due to the diversity of use of this subtheme, it does not, on its own, offer any specific analytical insights.
	Physical therapist –The theme Physical is often associated with sunrise applications for the establishment of regulatory regimes for physical therapists or physical therapy assistants. In addition, these applications may also relate to a request for a change to the scope of practice of these groups.	This subtheme is useful in identifying regulatory evolution in both the regime and the scope of practice of the discipline over time and geography.
Practice & Practitioners	These themes identify widespread content of the terms <i>practice</i> and <i>practitioner</i> and in isolation do not offer any coherent insights into the sunrise process.	Due to the diversity of the use of these themes, they do not on their own offer any specific analytical insights.
Procedures, Processes, & Treatments	Intervention –The reference codes against these themes fall into two subthemes, the first of which encompasses a diverse range of interventions performed by the regulated or proposed-to-be regulated discipline. In such cases, the explanation often seeks to identify the risk associated with the procedure and some commentary on the ability of the discipline to perform the procedure safely.	These themes have a high degree of overlap and share the same two subtheme components. While the content from the Processes theme references sources that tend to cover more administrative content than content associated with procedures and treatments, the material covered is similar. Hence, the themes and the associated subthemes do not offer any substantive insights into the conduct of sunrise reviews.
	Protocol followed –The second subtheme refers to the steps, procedures, or guidance to be followed in relation to either clinical, legal, or administrative activities.	
Program	Educational and clinical content – Many of the references relate to the educational content, structure, and requirements associated with the theoretical and clinical requirements that need to be met if an individual is to be eligible for regulation.	Due to the diversity of use of this subtheme, it does not on its own offer any specific analytical insights; however, examination of the requirements across different disciplines could be used to help inform the construction of a metric to compare potential harm with the quantum of constraints put in place.
	Validation – In addition to educational and clinical content, multiple references are made to the need for such programs to meet required standards, gain accreditation of an appropriate professional or educational body, and obtain approval by the regulatory agency that will ultimately issue regulated status (placed on a register, certified or licensed).	While programs are required to meet standards to be accredited or approved, the sunrise reports do not explore the impact on public safety of such measures. This is an area for potential future research.
Providers	Collective term referring to the group or discipline seeking regulation or extension to their scope of practice.	Due to the diversity of use of this theme, it does not on its own offer any specific analytical insights.
Public	Public interest –The most frequent subtheme in this area relates to the need to pursue regulatory solutions that act in the public interest. This theme is closely linked to the Regulation theme and the Criteria subtheme under the Sunrise theme.	Extensive work has already been undertaken by Benton et al. (2019) in relation to defining the dimensions of acting in the public interest, and these could be helpful in informing education on this subtheme and associated themes.
	Public engagement – Several references explore the issue of public engagement in the regulatory processes. These relate to both the formative phase where regulation is being considered and consulted upon as well as the role that public members can play on boards should a regulatory agency be established.	There have been several ad hoc studies looking at the role of public members and how they engage in the formative and governance processes of regulatory agencies. This represents an area for potential further study, starting with a narrative review of the available literature.
	Costs – Linked to the issue of public interest is the debate on the cost benefit of regulating disciplines. The material is closely aligned to the Regulatory Theory subtheme under the Regulation theme.	This reinforces the need for those tasked with considering regulatory reviews to have a good knowledge of regulatory impact analysis processes and how the benefits of public safety can be weighed against other factors, resulting in a proportionate solution.

Theme	Description and Elaboration of Associated Subtheme	Commentary
Regulation	Regulatory approach – Documents the range of approaches that can be used to reduce harm but simultaneously minimize unnecessary barriers. Typically, these approaches focus on licensure, certification, and registration, but other mechanisms are considered from time to time.	Multiple reports stress the need to take a proportionate approach and to use the least restrictive form of regulation compatible with minimizing harm to the recipient of services. Detailed information on how harms and benefits to the recipient of service, impact of economic and access factors, and wider labor market issues can be consistently applied is provided along with how these then map to the most appropriate regulatory approach. There is increasing and lengthy literature on this subject, and further analysis would potentially improve standardization of decision-making. Reviewing work by Ayres and Braithwaite (1992), Ivec et al. (2015), and Ross (2017) might be a useful starting point for such an analysis.
	Regulatory theory – Explores the need to ensure that the required regulatory solution is being driven by a public safety rather than a professional advancement perspective that could lead to regulatory capture of labor market benefits for the discipline. Some professional organizations actively lobby to establish or block new disciplines and expand or prevent changes to scope of practice that impacts their existing scope (American Medical Association, International Interior Design Association and the National Society of Genetic Counselors).	It is important to note that there are different drivers and imperatives in terms of the regulator, the professional association, and the trade union. For those seeking to make informed judgments on sunrise report applications, a rudimentary understanding of these differences is needed along with familiarity with the literature on regulatory theory. This information could form part of an initial briefing to sunset review panels or could be included in an International Center for Regulatory Scholarship introductory model. For an exploration of differences between regulators, associations, and unions, reference can be made to the analysis by Benton et al. (2017).
Requirements	General term used to refer to predetermined specifications that must be met to enable candidates to comply with the set regulatory model. Compliance with such requirements then enables the individual to be licensed, certified, or registered, depending on the approach taken.	Due to the diversity of use of this theme, it does not offer any specific analytical insights; however, it may assist in the longer term to develop or validate a proportionate approach to setting requirements for the different types of regulatory models.
School	General term used to describe the educational setting where a particular student is educated. It is also used to differentiate funding sources (public or private) and is used in the everyday sense where young children get their initial education.	Due to the diversity of use of this theme, it does not offer any specific analytical insights.
Services	This term is used as a descriptor of the work undertaken or the interventions offered in relation to the scope of practice of the discipline or is used as a collective term for such activities (e.g., anesthesia services).	Due to the diversity of use of this theme it does not offer any specific analytical insights; however, by documenting the various services offered against the specific disciplines, this may assist in developing a harms/responses matrix.
Setting	Location of service – This is a general point describing where the regulated discipline typically delivers services, such as community center, acute care facility, corporate setting, or clinic.	Due to the diversity of use of this subtheme, it does not on its own offer any specific analytical insights other than to identify typically where services are provided.
	Limitation on service – Highlights that in some cases, the provision of services is constrained to a certain setting or in locations where additional controls such as supervision by another discipline applies.	Limitation on service is an important issue to identify as it links to the concept of proportionality of the regulatory model and may be one of the factors that a sunrise review needs to consider before reaching a final determination of whether regulation of the discipline is justified and proportionate and does not impose unnecessary barriers to trades in services.
Specific	This term is used as a general qualifier to give direction toward a particular point. It is used in relation to many issues relating to the patient, practitioner, or setting.	Due to the diversity of use of this theme, it does not on its own offer any specific analytical insights.

Theme	Description and Elaboration of Associated Subtheme	Commentary
Standards	Practitioner standards – References to the standards set in relation to the practitioner relating to education, practice, and conduct or ethics.	These are the usual range of requirements that are needed for either licensure, certification, or registration.
	Regulatory standards – Looks at how practitioner standards relate to differing levels of regulatory response – licensure, certification, or registration. In addition, the use of entry-to-practice examinations, criminal background checks, and, in some cases, ongoing requirements for the maintenance of regulated status are also explored.	While the references make general comments on the differing approaches taken, no detailed framework on how requirements for a license, certification, or registration are set in a structured, measurable, and proportionate manner is provided. This is an important opportunity for further research and would be a major contribution as to how occupations and proportionate regulatory responses are calibrated and differentiated.
	Barriers to entry – Some references relate to the fact that while the standards are in place to protect the public. they may also act as a barrier to entry to practice as not everyone will be able to meet the standards.	This links to the work on the Regulatory Theory subtheme under Regulation and the need to have a proportionate response.
State	Interstate differences – Highlights that there are often differences in regulatory approach and/or requirements that can lead to confusion and have an impact on mobility of the profession concerned.	While there are both similarities and differences between states in their approach to the regulation of various disciplines, this can often provide opportunities to conduct and evaluate natural experiments that may then be used to identify which approach delivers the greatest benefits in reducing harm with minimal regulatory actions.
	Police powers – Identifies that each state has the authority under the 10th Amendment of the U.S. Constitution to take the steps that they see necessary to protect their population.	
Sunrise	Legislative action – Highlights that sunrise reviews focus on four related issues: (1) The investigation of the need to establish new regulatory regimes for occupations, disciplines, or professions. (2) Requests to amend the scope of practice of a particular occupation, discipline, or profession usually extending their role into a space that was and sometimes continues to be delivered by another regulated discipline. (3) Proposed changes to align licensure requirements in one state with those commonly occurring in another jurisdiction. (4) Often linked to either establishment of a new discipline or expansion in their scope, requested to establish or expand the scope in a manner that standardized the practice across jurisdictions.	While some states have provided templates to assist in gathering information from applicants these tend not to differentiate between the four types of action identified. Washington has already done so for new regimes and changes of scope. This best or promising practice could be developed further to embrace standardization and changes to regulatory requirements.
	Criteria – Sets out the criteria used to assist legislators in determining whether the requested legislative action is justifiable. These criteria typically focus on whether the discipline in its entirety or the alteration to scope presents a measurable harm to the recipient of service and whether the assessment of benefits of the regulated action outweighs any disadvantages. Finally, consideration of the proportionality of the regulatory tool being used is given to the risk of harm being posed and the negative impacts on the recipient of service, operating costs, and labor market dynamics.	

Theme	Description and Elaboration of Associated Subtheme	Commentary
Sunrise (continued)	<p>Process and actors – Information on the processes and associated timelines to be followed in the conduct of the review is set out along with the entity or group tasked with completing the analysis. This subtheme points toward the competencies needed to undertake the review: (a) curation and analysis of evidence, (b) establishing and undertaking consultative processes that may utilize open hearings or structured surveys, (c) use of critical scaling techniques and regulatory burden frameworks, and (d) historical comparative analysis with how the discipline is regulated in other jurisdictions and how any existing state or federal regulations will impact on the request being made to regulate, standardize, or expand the scope of the discipline under consideration.</p>	<p>The data obtained from this subtheme could be used to develop resources that could form part of a learning unit in the policy arm of the development materials for the International Center for Regulatory Scholarship.</p>
System	<p>Wider systems perspective – Highlights the contribution of the discipline in relation to mainly the component parts of the healthcare delivery model; however, in some recent cases, connections are being made to the impact of the regulated discipline on wider economic, welfare, labor, and other systems.</p> <hr/> <p>Regulatory system – Specific content highlights the need for the regulatory model to ensure that it meets its obligations and is held accountable for its actions. In short, it is pointing toward the need for an ongoing process after a discipline is granted regulatory authority via the sunrise review and links to follow-up action via sunset reviews or ongoing accreditation systems.</p>	<p>With changing demographics and an increase in complexity of interventions and chronic disease prevalence, the need to look beyond health impact is an important factor both in terms of public safety but also in terms of service sustainability. Accordingly, this may point toward additional criteria that need to be considered in terms of any regulatory impact analysis conducted as part of the review.</p> <hr/> <p>Reinforces the need to develop a regulatory body accreditation system with a set of agreed and comparable metrics.</p>
Therapist & Therapy	<p>There are no subthemes associated with these frequently cited references. The stem word <i>therapy</i> or <i>therapist</i> is often associated with a wide range of postqualifiers that specify the type of therapist or the interventions that the therapist can offer.</p>	<p>These themes are frequently occurring and are used to anchor much of the proposals associated with the regulatory proposals being made. They do not provide key analytical information.</p>
Work	<p>Nature of practice – Focuses on what it is that a discipline does. The references to this subtheme cover clinical, educational, and administrative aspects of the work that the various disciplines undertake.</p> <hr/> <p>Foci of practice – Closely linked to the what or nature of practice is the foci of practice, which is who the discipline works with and for.</p> <hr/> <p>Labor market impact – As highlighted in the Regulation theme, using a proportionate response is important if the public is to be safe but avoid unnecessary controls that may adversely impact mobility or the ability to get work.</p>	<p>The nature and foci of practice subthemes are important components of a determination of the risk that a discipline presents and the regulatory model that is needed to mitigate risk.</p> <hr/> <p>With the advent of changing labor market demographics and the simultaneous increase in the need of services by individuals with complex and chronic diseases, increased attention on the labor market impacts of regulation is increasing (Gittleman et al., 2015).</p>

Note. NCSBN = National Council of State Boards of Nursing.

APPENDIX B

State Legislative Power, Associated Criteria, and Report Authors

State	Statute/ Code (Year)	Criteria to Consider	Authors
Arizona	Ariz. Rev. Stat. § 32-3103 (2018)	<p>A.1. There is credible evidence that the unregulated practice of [the] health profession can clearly harm or endanger the public health, safety or welfare and the potential for harm is easily recognizable and not remote or dependent on tenuous argument.</p> <p>A.2. The public needs and can reasonably be expected to benefit from an assurance of initial and continuing professional ability.</p> <p>A.3. The public cannot be effectively protected by other means in a more cost-beneficial manner.</p>	Applicant groups for regulation
Colorado	Colo. Rev. Stat. § 24-34-104.1 (2019)	<p>(4)(b)(I) Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and whether the potential for the harm is easily recognizable and not remote or dependent upon tenuous argument;</p> <p>(4)(b)(II) Whether the public needs, and can reasonably be expected to benefit from, an assurance of initial and continuing professional or occupational competence;</p> <p>(4)(b)(III) Whether the public can be adequately protected by other means in a more cost-effective manner; and</p> <p>(4)(b)(IV) Whether the imposition of any disqualifications on applicants for licensure, certification, relicensure, or recertification based on criminal history serves public safety or commercial or consumer protection interests.</p>	Appropriate legislative committee
Connecticut	Public Act 90 (H.B. 5371) (1972, eliminated 2017)	<ul style="list-style-type: none"> • Identify the healthcare professions currently governed by legislatively-defined scopes of practice. • Describe the state's process to develop and amend scopes of practice for healthcare professions and summarize any major changes to the process occurring over time. • Identify the state's regulatory entities responsible for overseeing the healthcare professions governed by scopes of practice and determine their function within the scope of practice development process. • Determine the roles of nongovernmental entities (e.g., professional associations and healthcare insurers) in the scope of practice development process and their impact on the process. • Examine whether Connecticut's scope of practice process improves consumers' access to healthcare services provided by competent health professionals. • Describe the models used by other states to develop scopes of practice for health professions (e.g., independent committees of experts used to provide advice to policymakers and input into the legislative deliberation process). • Review whether any other states are currently modifying their scope of practice development processes and the reasons for such modifications. • Evaluate whether a different model, or changes to the current model for developing and amending scopes of practice for health professions in Connecticut would enhance the process. • Assess the potential impact of a new or revised scope of practice process on the organization, resources, and coordination of the state's regulatory entities responsible for overseeing healthcare professions. 	Office of Programs Review

State	Statute/ Code (Year)	Criteria to Consider	Authors
Florida	Fla. Stat. § 3.11.62 (2021)	<p>(3)(a) Whether the unregulated practice of the profession or occupation will substantially harm or endanger the public health, safety, or welfare, and whether the potential for harm is recognizable and not remote;</p> <p>(3)(b) Whether the practice of the profession or occupation requires specialized skill or training, and whether that skill or training is readily measurable or quantifiable so that examination or training requirements would reasonably assure initial and continuing professional or occupational ability;</p> <p>(3)(c) Whether the regulation will have an unreasonable effect on job creation or job retention in the state or will place unreasonable restrictions on the ability of individuals who seek to practice or who are practicing a given profession or occupation to find employment;</p> <p>(3)(d) Whether the public is or can be effectively protected by other means; and</p> <p>(3)(e) Whether the overall cost-effectiveness and economic impact of the proposed regulation, including the indirect costs to consumers, will be favorable.</p>	State agency that is proposed to have jurisdiction over the regulation AND the legislative committees to which the legislation is referred.
Georgia	Ga. Code Ann. § 43- 1A-6 (2010)	<p>(1) Whether the unregulated practice of the occupation may harm or endanger the health, safety, and welfare of citizens of this state and whether the potential for harm is recognizable and not remote;</p> <p>(2) Whether the practice of the occupation requires specialized skill or training and whether the public needs and will benefit by assurances of initial and continuing occupational ability;</p> <p>(3) Whether the citizens of this state are or may be effectively protected by other means;</p> <p>(4) Whether the overall cost effectiveness and economic impact would be positive for citizens of this state; and</p> <p>(5) Whether there are means other than state regulation to protect the interests of the state.</p>	Georgia Occupational Regulation Review Council. The council shall work with the applicant group, the legislative committee of reference, and other interested parties in formulating its formal report.
Hawaii	Haw. Rev. Stat. § 26H-2 (2019)	<p>(1) The regulation and licensing of professions and vocations shall be undertaken only where reasonably necessary to protect the health, safety, or welfare of consumers of the services; the purpose of regulation shall be the protection of the public welfare and not that of the regulated profession or vocation;</p> <p>(2) Regulation in the form of full licensure or other restrictions on certain professions or vocations shall be retained or adopted when the health, safety, or welfare of the consumer may be jeopardized by the nature of the service offered by the provider;</p> <p>(3) Evidence of abuses by providers of the service shall be accorded great weight in determining whether regulation is desirable;</p> <p>(4) Professional and vocational regulations which artificially increase the costs of goods and services to the consumer shall be avoided except in those cases where the legislature determines that this cost is exceeded by the potential danger to the consumer;</p> <p>(5) Professional and vocational regulations shall be eliminated when the legislature determines that they have no further benefits to consumers;</p> <p>(6) Regulation shall not unreasonably restrict entry into professions and vocations by all qualified persons; and</p> <p>(7) Fees for regulation and licensure shall be imposed for all vocations and professions subject to regulation; provided that the aggregate of the fees for any given regulatory program shall not be less than the full cost of administering that program.</p>	State auditor
Idaho	Idaho Code Ann. § 67- 9408 (2020)	<p>(4)(c)(ii) Why licensing or other regulation of the profession or occupation is necessary to protect against present, recognizable, and sufficient harm to the health, safety, or welfare of the public to warrant the regulation proposed;</p> <p>(4)(c)(iii) Why the proposed licensing or other regulation is the least restrictive regulation necessary to protect against present, recognizable, and sufficient harm to the health, safety, or welfare of the public to warrant the regulation proposed;</p> <p>(4)(c)(iv) Why the public cannot be effectively protected by other means;</p> <p>(4)(c)(v) Whether the overall cost-effectiveness and economic impact of the proposed regulation, including the direct and indirect costs to consumers, will be outweighed by the benefits of the proposed licensing or other regulation;</p> <p>(4)(c)(vi) Whether the proposed licensing or other regulation will have an unreasonably negative effect on job creation, job retention, or wages in the state or will place unreasonable restrictions on the ability of individuals who seek to practice or who are practicing a given profession or occupation to continue to practice or to find employment.</p>	Legislative Services Office

State	Statute/ Code (Year)	Criteria to Consider	Authors
Maine	Me. Stat. tit. 32, § 60-J (1995)	<ol style="list-style-type: none"> <li data-bbox="437 197 1230 365">1. Data on group. A description of the professional or occupational group proposed for regulation or expansion of regulation, including the number of individuals or business entities that would be subject to regulation, the names and addresses of associations, organizations, and other groups representing the practitioners, and an estimate of the number of practitioners in each group; <li data-bbox="437 373 1230 489">2. Specialized skill. Whether practice of the profession or occupation proposed for regulation or expansion of regulation requires such a specialized skill that the public is not qualified to select a competent practitioner without assurances that minimum qualifications have been met; <li data-bbox="437 497 1230 749">3. Public health; safety; welfare. The nature and extent of potential harm to the public if the profession or occupation is not regulated, the extent to which there is a threat to the public's health, safety, or welfare and production of evidence of potential harm, including a description of any complaints filed with state law enforcement authorities, courts, departmental agencies, other professional or occupational boards, and professional and occupational associations that have been lodged against practitioners of the profession or occupation in this State within the past 5 years; <li data-bbox="437 758 1230 894">4. Voluntary and past regulatory efforts. A description of the voluntary efforts made by practitioners of the profession or occupation to protect the public through self-regulation, private certifications, membership in professional or occupational associations, or academic credentials and a statement of why these efforts are inadequate to protect the public; <li data-bbox="437 903 1230 1039">5. Cost; benefit. The extent to which regulation or expansion of regulation of the profession or occupation will increase the cost of goods or services provided by practitioners and the overall cost-effectiveness and economic impact of the proposed regulation, including the indirect costs to consumers; <li data-bbox="437 1047 1230 1121">6. Service availability of regulation. The extent to which regulation or expansion of regulation of the profession or occupation would increase or decrease the availability of services to the public; <li data-bbox="437 1129 1230 1266">7. Existing laws and regulations. The extent to which existing legal remedies are inadequate to prevent or redress the kinds of harm potentially resulting from non-regulation and whether regulation can be provided through an existing state agency or in conjunction with presently regulated practitioners; <li data-bbox="437 1274 1230 1390">8. Method of regulation. Why registration, certification, license to use the title, license to practice, or another type of regulation is being proposed, why that regulatory alternative was chosen and whether the proposed method of regulation is appropriate; <li data-bbox="437 1398 1230 1514">9. Other states. A list of other states that regulate the profession or occupation, the type of regulation, copies of other states' laws and available evidence from those states of the effect of regulation on the profession or occupation in terms of a before-and-after analysis; <li data-bbox="437 1522 1230 1579">10. Previous efforts. The details of any previous efforts in this State to implement regulation of the profession or occupation. 	The commissioner shall prepare a final report (which can include help from a technical committee), for the joint standing committee of the legislature that requested the evaluation, and the report includes any legislation required to implement the commissioner's recommendation.

State	Statute/ Code (Year)	Criteria to Consider	Authors
Minnesota	MN. Stat. § 214.001 to 214.002 (2020)	<p>2. Criteria for regulation. The legislature declares that no regulation shall be imposed upon any occupation unless required for the safety and well being [<i>sic</i>] of the citizens of the state. In evaluating whether an occupation shall be regulated, the following factors shall be considered:</p> <ol style="list-style-type: none"> (1) whether the unregulated practice of an occupation may harm or endanger the health, safety and welfare of citizens of the state and whether the potential for harm is recognizable and not remote; (2) whether the practice of an occupation requires specialized skill or training and whether the public needs and will benefit by assurances of initial and continuing occupational ability; (3) whether the citizens of this state are or may be effectively protected by other means; and (4) whether the overall cost effectiveness and economic impact would be positive for citizens of the state. <p>3. Regulation of new occupations. If the legislature finds after evaluation of the factors identified in subdivision 2 that it is necessary to regulate an occupation not heretofore credentialed or regulated, then regulation should be implemented consistent with the policy of this section, in modes in the following order:</p> <ol style="list-style-type: none"> (1) creation or extension of common law or statutory causes of civil action, and the creation or extension of criminal prohibitions; (2) imposition of inspection requirements and the ability to enforce violations by injunctive relief in the courts; (3) implementation of a system of registration whereby practitioners who will be the only persons permitted to use a designated title are listed on an official roster after having met predetermined qualifications; or (4) implementation of a system of licensing whereby a practitioner must receive recognition by the state of having met predetermined qualifications, and persons not so licensed are prohibited from practicing. <p>Two or more of these modes may be simultaneously implemented if necessary and appropriate.</p>	Proponents of legislation

State	Statute/ Code (Year)	Criteria to Consider	Authors
Nebraska	Neb. Rev. Stat. § 71- 6221-6222 (2019)	<p>(1) A health profession shall be regulated by the state only when:</p> <ul style="list-style-type: none"> (a) Unregulated practice can clearly harm or endanger the health, safety, or welfare of the public (b) Regulation of the health profession does not impose significant new economic hardship on the public, significantly diminish the supply of qualified practitioners, or otherwise create barriers to service that are not consistent with the public welfare and interest; (c) The public needs assurance from the state of initial and continuing professional ability; and (d) The public cannot be protected by a more effective alternative. <p>(2) If it is determined that practitioners of a health profession not currently regulated are prohibited from the full practice of their profession in Nebraska, then the following criteria shall be used to determine whether regulation is necessary:</p> <ul style="list-style-type: none"> (a) Absence of a separate regulated profession creates a situation of harm or danger to the health, safety, or welfare of the public; (b) Creation of a separate regulated profession would not create a significant new danger to the health, safety, or welfare of the public; (c) Creation of a separate regulated profession would benefit the health, safety, or welfare of the public; and (d) The public cannot be protected by a more effective alternative. <p>(3) The scope of practice of a regulated health profession shall be changed only when:</p> <p>(4) The division shall, by rule and regulation, establish standards for the application of each criterion which shall be used by the review bodies in recommending whether proposals for credentialing or change in scope of practice meet the criteria.</p>	Director of Public Health and an appointed technical committee and Board of Health
		<p>AND</p> <p>...[T]he least restrictive alternative method of regulation shall be implemented, consistent with the public interest and this section, as follows:</p> <ul style="list-style-type: none"> (1) When the threat to the public health, safety, welfare, or economic well-being is relatively small, regulation shall be by means other than direct credentialing of the health profession [...]; (2) When there exists a diversity of approaches, methods, and theories by which services may be rendered and when the right of the consumer to choose freely among such options is considered to be of equal importance with the need to protect the public from harm, the regulation shall implement a system of registration; (3) When the consumer may have a substantial basis for relying on the services of a practitioner, the regulation shall implement a system of certification; or (4) When it is apparent that adequate regulation cannot be achieved by means other than licensing, the regulation shall implement a system of licensing. 	

State	Statute/ Code (Year)	Criteria to Consider	Authors
Ohio	Ohio Rev. Code § 4798.02 (2019)	<p>With respect to occupational regulation of individuals, all of the following are the policy of the state:</p> <p>(A) Occupational regulations shall be construed and applied to increase economic opportunities, promote competition, and encourage innovation.</p> <p>(B) Where the state finds it is necessary to displace competition, the state will use the least restrictive regulation to protect consumers from present, significant, and substantiated harms that threaten public health, safety, or welfare. The policy of employing the least restrictive regulation shall presume that market competition and private remedies are sufficient to protect consumers. Where needed, regulations shall be tailored to meet the predominate identified need to protect consumers, as follows:</p> <ol style="list-style-type: none"> (1) If regulations are intended to protect consumers against fraud, the appropriate state action shall be to strengthen powers under deceptive trade practices acts. (2) If regulations are intended to protect consumers against unsanitary facilities and general health, safety, or welfare concerns, the appropriate state action shall be to require periodic inspections. (3) If regulations are intended to protect consumers against potential damages to third parties who are not party to a contract between the seller and buyer, and other types of externalities, the appropriate state action shall be to require bonding or insurance. (4) If regulations are intended to protect consumers against potential damages by transient providers, the appropriate state action shall be to require registration with the secretary of state. (5) If regulations are intended to protect consumers against asymmetrical information between the seller and buyer, the appropriate state action shall be to offer voluntary certification, unless suitable, privately offered voluntary certification for the relevant occupation is available. 	Director of the Legislative Services Commission
Vermont	Vt. Stat. Ann. Tit. 26, § 57-3105 (2020)	<p>(a) A profession or occupation shall be regulated by the state only when:</p> <ol style="list-style-type: none"> (1) it can be demonstrated that the unregulated practice of the profession or occupation can clearly harm or endanger the health, safety, or welfare of the public, and the potential for the harm is recognizable and not remote or speculative; (2) the public can reasonably be expected to benefit from an assurance of initial and continuing professional ability; and (3) the public cannot be effectively protected by other means. <p>(b) After evaluating the criteria in subsection (a) of this section and considering governmental and societal costs and benefits, if the General Assembly finds that it is necessary to regulate a profession or occupation, the least restrictive method of regulation shall be imposed, consistent with the public interest and this section:</p> <ol style="list-style-type: none"> (1) if existing common law and statutory civil remedies and criminal sanctions are insufficient to reduce or eliminate existing harm, regulation should occur through enactment of stronger civil remedies and criminal sanctions; (2) if a professional or occupational service involves a threat to the public and the service is performed primarily through business entities or facilities that are not regulated, the business entity or the facility should be regulated rather than its employee practitioners; (3) if the threat to the public health, safety, or welfare, including economic welfare, is relatively small, regulation should be through a system of registration; (4) if the consumer may have a substantial interest in relying on the qualifications of the practitioner, regulation should be through a system of certification; or (5) if it is apparent that the public cannot be adequately protected by any other means, a system of licensure should be imposed. 	Office of Professional Regulation

State	Statute/ Code (Year)	Criteria to Consider	Authors
Virginia	Va. Code Ann. § 54.1- 311 (1988)	<p>(B) In determining the proper degree of regulation, if any, the Board shall determine the following:</p> <ol style="list-style-type: none"> 1. Whether the practitioner, if unregulated, performs a service for individuals involving a hazard to public health, safety, or welfare. 2. The opinion of a substantial portion of the people who do not practice the particular profession, trade or occupation on the need for regulation. 3. The number of states which have regulatory provisions similar to those proposed. 4. Whether there is sufficient demand for the service for which there is no regulated substitute, and this service is required by a substantial portion of the population. 5. Whether the profession or occupation requires high standards of public responsibility, character, and performance of everyone engaged in the profession or occupation, as evidenced by established and published codes of ethics. 6. Whether the profession or occupation requires such skill that the public generally is not qualified to select a competent practitioner without some assurance that [the practitioner] has met minimum qualifications. 7. Whether the professional or occupational associations do not adequately protect the public from incompetent, unscrupulous or irresponsible members of the profession or occupation. 8. Whether current laws which pertain to public health, safety and welfare generally are ineffective or inadequate. 9. Whether the characteristics of the profession or occupation make it impractical or impossible to prohibit those practices of the profession or occupation which are detrimental to the public health, safety and welfare. 10. Whether the practitioner performs a service for others which may have a detrimental effect on third parties relying on the expert knowledge of the practitioner. 	Board of Health

State	Statute/ Code (Year)	Criteria to Consider	Authors
Washington	Wash. Rev. Code §18.120.010 (2005)	<p>(1) [...]The legislature believes that all individuals should be permitted to enter a health profession unless there is an overwhelming need for the state to protect the interests of the public by restricting entry into the profession. Where such a need is identified, the regulation adopted by the state should be set at the least restrictive level consistent with the public interest to be protected.</p> <p>(2) It is the intent of this chapter that no regulation shall, after July 24, 1983, be imposed upon any health profession except for the exclusive purpose of protecting the public interest. All bills introduced in the legislature to regulate a health profession for the first time should be reviewed according to the following criteria. A health profession should be regulated by the state only when:</p> <ul style="list-style-type: none"> (a) Unregulated practice can clearly harm or endanger the health, safety, or welfare of the public, and the potential for the harm is easily recognizable and not remote or dependent upon tenuous argument; (b) The public needs and can reasonably be expected to benefit from an assurance of initial and continuing professional ability; and (c) The public cannot be effectively protected by other means in a more cost-beneficial manner. <p>(3) After evaluating the criteria in subsection (2) of this section and considering governmental and societal costs and benefits, if the legislature finds that it is necessary to regulate a health profession not previously regulated by law, the least restrictive alternative method of regulation should be implemented, consistent with the public interest and this section:</p> <ul style="list-style-type: none"> (a) Where existing common law and statutory civil actions and criminal prohibitions are not sufficient to eradicate existing harm, the regulation should provide for stricter civil actions and criminal prosecutions; (b) Where a service is being performed for individuals involving a hazard to the public health, safety, or welfare, the regulation should impose inspection requirements and enable an appropriate state agency to enforce violations by injunctive relief in court, including, but not limited to, regulation of the business activity providing the service rather than the employees of the business; (c) Where the threat to the public health, safety, or economic well-being is relatively small as a result of the operation of the health profession, the regulation should implement a system of registration; (d) Where the consumer may have a substantial basis for relying on the services of a practitioner, the regulation should implement a system of certification; or (e) Where apparent that adequate regulation cannot be achieved by means other than licensing, the regulation should implement a system of licensing. 	Applicant group, which is any health professional group or organization, any individual, or any other interested party

State	Statute/ Code (Year)	Criteria to Consider	Authors
West Virginia	W. Va. Code §30-1A (2021)	<p>1(a) Regulation should be imposed on an occupation or profession only when necessary for the protection of public health and safety.</p> <p>3(j) For an application proposing the regulation of an unregulated professional or occupational group or organization, the [...] report shall include evaluation, analysis, and findings as to:</p> <ul style="list-style-type: none"> (1) Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and any substantial harms to consumers in the state; (2) The requisite personal qualifications, if any; (3) The scope of practice, if applicable (4) If regulation is required to address evidence of harm to consumers in the state, the least restrictive regulation of the occupation or profession; and <ul style="list-style-type: none"> • Whether the professional or occupational group or organization should be regulated as proposed in the application. <p>3(k) For an application proposing the establishment, revision, or expansion of the scope of practice of a regulated profession or occupation, the report shall include the evaluation, analysis, and findings from (1)-(4) above as is applicable, AND a clear recommendation as to whether the scope of practice should be established, revised or expanded as proposed in the application.</p>	The Performance Evaluation and Re- search Division of the Office of the Legislative Auditor

