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An exploratory study on the impact of COVID-19 on U.S. State boards of accountancy

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A B S T R A C T

In the United States (U.S.) individual state boards of accountancy govern the accounting profession within each state. When COVID-19 struck the U.S., state boards worked to maintain normal operations. This study examines how COVID-19 affected the regulatory and oversight activities of the state boards of accountancy and the ways in which boards adapted to the pandemic. We interview executive directors from 21 state boards to determine the pandemic's impact on board operations and continuing professional education requirements. We also evaluate whether state boards implemented guidance from parties such as the National Association of State Boards of Accountancy (NASBA), and the resources boards had available to navigate the pandemic. Finally, we examine our analyses and findings through the lens of institutional theory. In doing so, we describe how state boards' individual reactions to the pandemic resulted in a largely homogenous response, as affected by coercive, mimetic, and normative isomorphic mechanisms.

Keywords:

COVID-19

Pandemic

State boards of accountancy

Executive directors

Institutional theory

1. Introduction

The rapid spread of COVID-19 in early 2020 forced the world to adjust to a new normal with almost no time to prepare. Virtually overnight, many activities were either eliminated altogether or dramatically reimagined. While the impact of COVID-19 on business professionals and companies has been well documented (e.g., in trade journals, news stories, and social media), it is not well known how the pandemic impacted the regulation and oversight of the professions. The accounting profession in the United States (U.S.), the focus of this study, features a governance model in which state boards of accountancy control initial and ongoing licensing of individual Certified Public Accountants (CPAs), continuing professional education requirements (CPE), compliance with state-specific ethics requirements, and firm peer reviews for CPAs practicing/operating within their jurisdiction. In this study, we examine how COVID-19 affected CPAs in the U.S. in terms of regulatory and oversight activities of the state boards of accountancy and how boards responded to the pandemic.¹

Our study has three primary first-order goals (Van Maanen, 1979) that contribute to an understanding of the changes in regulatory and oversight activities of state boards in response to the COVID-19 pandemic. Our first goal is to explore the effects of COVID-19 on board operations, while our second and third goals respectively are to understand the pandemic's effects on state-specific CPE requirements and the implementation of recommendations from the National Association of State Boards of Accountancy (NASBA), the leading professional association for state boards of accountancy in the U.S. Our study also has an important second-order goal of organizing and explaining our findings through a theoretical lens. Like other studies (e.g., Jenkins et al., 2018b; Westermann et al., 2019; and Carlisle et al., 2022), we employ “downstream theorizing” to examine theoretical implications of our interview findings. We examine our findings through the theoretical lens of institutional theory (DiMaggio and Powell, 1983; Greenwood et al., 2002).

To accomplish our first-order goals, we conducted semi-structured interviews with executive directors at state boards of accountancy. Our interview questions focused on the effects of COVID-19 on several key areas: (1) daily functions, operating budgets, and staffing levels, (2) state-specific CPE requirements, and (3) implementation of recommendations from NASBA on how to address pandemic-related challenges. We conducted our interviews from September to December 2020, after the initial shock of the pandemic had abated and executive directors and board staff had the time and opportunity to formulate plans on how to move forward. Interviews were conducted with 21 executive directors from states throughout the U.S. that comprise the majority of the nation's population and more than half of the persons regulated by state boards of accountancy. Using interview data alongside data gathered from NASBA and other publicly available sources, we also analyze the varying resources that state boards had available during the pandemic.

Our study reveals several ways in which state boards experienced and/or responded to the pandemic differently, including board staff capabilities to work remotely, limitations/benefits of available information technology, CPE requirements/extensions, and CPA exam deadlines/extensions. For example, state boards typically use one of five CPE reporting windows: annual, biennial rolling, biennial fixed, triennial rolling, or triennial fixed. Within these windows the reporting deadline varies, and might be set as December 31, June 30, September 30, or by the licensee's birth month.² As such, several states adjusted CPE requirements and deadlines based on their own unique environment. The study also reveals that state boards navigated the pandemic with a wide range of available resources. For example, California maintains the highest number of board staff (99) and persons regulated (99,167), for a ratio of approximately-one staff member per 1,000 persons regulated. In contrast, Nevada has nearly double this ratio (i.e., 6 staff for 3,424 persons regulated)³ and North Carolina (among others) maintains a ratio of about half as much (i.e., 12 staff for 22,243 persons regulated). Our interviewees also indicated some changes implemented in response to the pandemic are likely to become permanent, such as (the option for) virtual board meetings, expanded options for public access/participation in board meetings, and flexible work arrangements for board staff.

To accomplish our second-order goal, we examine and organize our data to identify higher level second-order themes that we use to explain our findings through a theoretical lens. Specifically, we examine our findings through the overarching lens of institutional theory, the three isomorphic mechanisms (i.e., coercive, mimetic, and normative) (DiMaggio and Powell, 1983), and by considering the role of theorization and professional associations in state board responses to COVID-19 (Greenwood et al., 2002). A primary tenet of institutional theory is that “individual efforts to deal rationally with uncertainty and constraint often lead, in the aggregate, to homogeneity in structure, culture, and output” (DiMaggio and Powell, 1983, 147). Indeed, our interviews and analyses indicate that the various state board responses resulted in a largely homogenous response that helped them continue upholding their public interest responsibilities. Coercive isomorphism is driven by formal and informal political influence to conform to certain rules and practices (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999). The coercive mechanisms we observe seem to have imposed necessary changes on state boards that, if not coercively imposed, might have taken longer to implement. Mimetic isomorphism is driven by responses to uncertainty, and typically manifests as an organization modelling certain rules and practices based on an exemplary peer (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999). Although we do not believe state boards specifically modelled one another's response to the pandemic, we believe many modelled responses (e.g., remote work) of the broader business community and accounting profession as those responses were quickly and easily observable. Under normative isomorphism, organizations adopt similar rules and practices as a result of employees' common formal education as well as their participation in similar professional networks, trainings, conferences, and trade associations (DiMaggio and Powell, 1983). For instance, many of the interviewed executive directors share a common educational/professional background, and also mentioned the influence of their close personal and professional relationships with other executive directors developed over time at NASBA meetings. Finally, Greenwood et al. (2002) discuss the importance of professional associations, such as NASBA, in providing an arena to theorize (i.e., assess), legitimate (i.e., endorse), and diffuse (i.e., communicate) particular actions. NASBA occupies a unique position that allowed it to assess, endorse, and communicate particular actions, although we do not observe blanket adherence to its recommendations.

² We use the term licensee to describe what NASBA refers to as a regulated person, which is an active CPA licensee or an inactive CPA licensee that pays a renewal fee.

³ Nevada operates with two full-time staff, one seasonal/part-time clerical worker, and three part-time/hourly CPA investigators.

This study is important for several reasons. First, it provides a timely examination of how state boards of accountancy changed their regulatory and oversight activities in response to COVID-19.⁴ Interviews with executive directors were conducted within months of the pandemic's onset, which allowed time for these leaders and their staff to work through the initial shock of the virus and implement initial plans on how to move forward. As such, the qualitative and quantitative data for this study were captured in near real-time, and are less vulnerable to forgotten details as might be the case with a retrospective study of the pandemic. The study also provides insight into the varying levels of resources that state boards have available, and in doing so reveals a considerable degree of resilience and adaptation among state boards to leverage their resources to continue their oversight of the accounting profession during the pandemic's onset. Finally, this study suggests that the collective state board responses to the pandemic produced a largely homogenous response, a phenomenon consistent with institutional theory.

The remainder of the paper is organized as follows. First, we provide an overview of regulation in the U.S. accounting profession and discuss why this study focuses on state boards of accountancy. Next, we describe the methodology and present the study's findings. The paper concludes with a discussion of these findings through the lens of institutional theory.

2. Background

2.1. Governance of the U.S. Accounting profession

As the result of a brief but dynamic history, the U.S. accounting profession maintains a governance model with both centralized (i.e., the American Institute of Certified Public Accountants (AICPA) and NASBA) and distributed (i.e., state boards) components. States secured the legal authority to regulate the accounting profession based on the 10th Amendment to the U.S. Constitution (Flesher, 2007), and New York passed the first law to recognize the CPA accreditation in 1896 (Zeff, 2003).⁵ Soon after New York, the majority of states passed CPA laws, and in 1908 the National Association of CPA Examiners (today's NASBA) was formed to help establish a uniform CPA exam. Ultimately, interstate commerce created a need for more national uniformity in education, licensing, and regulation of the profession. In response, the Institute of Accountants in the United States of America (the Institute) was created in 1916 and required members to pass a common exam (Carey, 1969). The Institute then merged with the American Society of Accountants in 1936 to form the AICPA, which also required members to pass a common exam and appointed state CPA society presidents as members of its council to strengthen relations with state-level entities.

Today, the AICPA, NASBA, and state boards of accountancy are instrumental in governing the profession. The AICPA (the largest professional association for accountants in the U.S.) provides audit/attest standards for private companies, technical support for CPAs, maintains a national-level code of professional conduct, and develops/maintains the current CPA exam. NASBA works to enhance the effectiveness and advance the common interests of state boards by "creating innovative avenues for accounting regulators, educators and practitioners alike to address emerging issues relevant to the viability of the accounting profession" (NASBA, 2021a). Finally, state boards control licensing, which includes defining educational and professional experience requirements, establishing CPE requirements (i.e., hours, topics, and reporting frequency), administering the CPA exam (unless delegated to NASBA), and setting licensing fees. State boards can also implement a code of professional conduct and discipline licensees for any related violations.

2.2. Theoretical lens and research questions

Institutional theory posits that individual organizations which exist within a larger organizational field respond to similar environmental conditions, and in doing so, end up homogenizing to resemble one another through a process referred to as isomorphism (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). Organizational fields, as used here, are broadly defined as "organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio and Powell, 1983, 148). For example, state boards of accountancy in the U.S. are organizations that exist within an organizational field of accounting regulators. Changes implemented as part of isomorphism are intended to (further) legitimize the organization within its environment, and thus increase its chances of survival (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Zucker, 1987).

Isomorphic changes occur through one of three mechanisms: coercive isomorphism, mimetic isomorphism, and normative isomorphism (DiMaggio and Powell, 1983). *Coercive isomorphism* is driven by formal and informal political influence (or other parties an organization depends upon) to conform to certain rules and practices (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999). For example, a state board of accountancy might be coerced into certain actions requested by the state governor when the board depends on the state legislature for funding allocations. *Mimetic isomorphism* is driven by responses to

⁴ We refer the interested reader to a special issue of the *Accounting, Auditing, & Accountability Journal* on the impact of COVID-19 on accounting, accountability, and management practices (Leoni et al., 2021). The majority of the studies included in the special issue examine international experiences. Our paper contributes to the COVID-related literature by examining the related regulatory response of U.S. state boards of accountancy to the pandemic.

⁵ The 10th Amendment to the U.S. Constitution reads: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people" (U.S. Congress, 1791).

uncertainty, and typically manifests as an organization modelling certain rules and practices based on an exemplary peer (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999). DiMaggio and Powell (1983, 151) point out that model diffusion can occur “unintentionally, indirectly through employee transfer or turnover, or explicitly by organizations such as consulting firms or industry trade associations.” For example, the executive director of a struggling state board might decide to model specific practices after those of a thriving state board. Finally, *normative isomorphism* results from professionalization, meaning organizations adopt similar rules and practices as a result of employees’ (common) formal education as well as their participation in similar professional networks, trainings, conferences, and trade associations (DiMaggio and Powell, 1983). For instance, state boards might adopt a common point-of-view on a matter after executive directors attend a training hosted by NASBA. While the three institutional isomorphic mechanisms carry discrete definitions, it is also important to note an observation by Mizruchi and Fein (1999, 657), that “two or more [mechanisms] could operate simultaneously and their effects will not always be clearly identifiable.” As such, it will not always be obvious which mechanism (or whether a single mechanism) is responsible for organizational change.

While the notion of isomorphism describes how an organization changes to establish or maintain legitimacy, institutional theory also seeks to explain why these changes occur (Greenwood et al., 2002; Griffith et al., 2015). Particularly relevant to the current study, changes might be implemented in response to (unanticipated) events that challenge the feasibility of existing practices (Greenwood et al., 2002). For a change to occur, it must be subject to a theorization process in which it is presented in an understandable format and accompanied by a compelling case as to why it is legitimate and “consistent with prevailing values” (Greenwood et al., 2002, 75). Professional associations can play a critical role in the theorization process. Specifically, professional associations provide an arena in which organizations can interact and develop understandings and expectations of reasonable behavior, and in doing so, these associations “ease change because they enable theorization” (Greenwood et al., 2002, 74). In our study, NASBA is a professional association that provides state boards of accountancy with an arena to gather and evaluate changes using a theorization process. As such, it is possible that NASBA, in its role as a professional association, affected the theorization process of changes implemented by state boards in their response to the pandemic.

The COVID-19 pandemic challenged the status quo across all types of organizations and organizational fields. Such events have the potential to disrupt organizational practices and rules, and thus lead to changes in institutions (Greenwood and Suddaby, 2006). We focus our study on the state boards of accountancy as organizations that make up a larger professional organizational field (i.e., accounting regulators), and examine the operational changes, if any, they implemented in response to the pandemic. In doing so, we use institutional theory as a lens through which to examine the (lack of) changes implemented by state boards in response to the spread of COVID-19. To guide the study, we pose the following three research questions:

RQ1: How did state boards of accountancy adapt their operations in response to the COVID-19 pandemic?

RQ2: How did state boards of accountancy adapt their continuing professional education requirements in response to the COVID-19 pandemic?

RQ3: To what extent did state boards of accountancy implement recommendations from NASBA in response to the COVID-19 pandemic?

3. Empirical design

This study employs a positivist approach to examine the three research questions. Under a positivist approach, researchers seek to remain objective, and in doing so view quotations from participants “as being self-evident” (Malsch and Salterio, 2016, 9) and assume “readers are able to make sense of quotations un-problematically” (Power and Gendron, 2015, 154). Furthermore, positivist researchers seek generalizability and use theory to “suggest causal explanations for the patterns observed in the field” (Malsch and Salterio, 2016, 6). More specifically, we examine our findings using institutional theory given its focus on organizational change, and also highlight when our field observations depart from this long-standing theory.

3.1. Interview methodology

To conduct this study, we employed a semi-structured interview approach (Wengraf, 2001; Gibbins and Qu, 2005) to understand how state boards adapted their policies and practices in response to the pandemic. We inquired about matters related to several key areas: (1) the immediate and anticipated impact of COVID-19 on state board daily functions, operating budgets, and staffing levels, (2) the effects of COVID-19 on state-specific CPE requirements, and (3) whether state boards implemented NASBA recommendations related to CPE (i.e., allowable course formats and reporting deadlines) and the CPA exam (i.e., expiration of Notices to Schedule and exam credits) matters.⁶ Because an important purpose of our research was to understand how COVID-19 affected the oversight of CPAs, we focused our interview questions on matters under the

⁶ CPA exam candidates must first apply to take the exam, which includes verification of eligibility based on education requirements and payment of testing fees. If approved, NASBA issues a Notice to Schedule, which lists the exam section(s) the candidate is allowed to schedule (Elkins, 2018). State boards of accountancy determine the period of time a Notice to Schedule is valid, but it is typically six months (Elkins, 2018).

jurisdiction of state boards. In doing so, we also designed our questions to explore whether state boards coordinated their responses to the pandemic (or came to similar responses) given the influence of NASBA. We used our interview script as a guide to ensure that we asked about each area of interest, but we also allowed for flexibility so interviewees could discuss matters that came to them during our conversation (Power and Gendron, 2015). To allow conversations to flow freely, we interrupted to ask follow-up questions only when necessary.

We interviewed executive directors, or their equivalent, because they are responsible for daily operations and have authority to speak on behalf of their state boards regarding matters of policies and practices. As part of developing the interview script, we pilot tested our questions with executive directors of state boards in Alabama, Georgia, and Ohio. In addition to obtaining their responses to our questions, we requested their feedback on the clarity and completeness of our interview questions and whether any of our questions were being asked prematurely (i.e., before the impact of COVID-19 could be known). Doing so allowed us to refine our interview script (e.g., removing questions on the pandemic's effects on licensee ethical conduct and adding a question about a board's use of centralized services like NASBA's CPA Examination Services, or CPAES) and to determine the feasibility and usefulness of the overall content of our interview script (Creswell, 2009). The final interview script is included in the Appendix.

To continue the data collection (i.e., interview) process, we requested interviews with executive directors from the most populous states from each of the NASBA regions. We then utilized a "snowball approach" (Malsch and Salterio, 2016, 7) in which we asked the initial interviewees to suggest other executive directors that might be interested and willing to participate in our study. The snowball approach was appropriate in our setting as executive directors represent a small pool of experts that likely know their peers at other state boards (Malsch and Salterio, 2016). We ceased requesting interviews when we stopped learning new information, which Guest, Bunce, and Johnson (2006) suggest may happen as early as 12 interviews. We obtained responses from executive directors of 21 state boards which provided coverage of 63.3 % of the U.S. population, 55.3 % of the regulated persons, and, except for the Northeast region, included at least two states from each of the eight NASBA regions. Of the executive directors who agreed to an interview, seventeen (81 percent) agreed to meet with us via video conference. Four (19 percent) interviewees were unable to participate via video conference but agreed to provide written responses to our interview questions and respond to any follow-up questions.⁷ In lieu of recording, two of the researchers wrote detailed notes during the interviews.⁸ This design choice was also employed by Griffith et al. (2015) in order to "obtain frank responses from interviewees" (p. 839). Each interview began with introductions and an exchange of pleasantries followed by a brief overview of our study. The first interview question was asked after obtaining an interviewee's consent to participate in the study.^{9,10} Interviews lasted an average of 49.3 min, with a range from 25 to 80 min. All interviews were conducted from September to December 2020.

We included several tactics to ensure the trustworthiness of our data and findings. First, the same researcher conducted each interview using a consistent approach and interview script while the other two researchers took detailed notes of the conversation. Second, following the conclusion of each interview, each of the researchers reviewed the detailed interview notes for accuracy and completeness. At this point, any discrepancies were identified, discussed, and resolved among the research team. Although note-taking differences were found during the review process, none of these differences was material. Third, to ensure the completeness and accuracy of notes taken during interviews and an accurate telling of interviewees' experiences, we took two actions. First, we employed a member checking technique in which we sent our detailed interview notes to the 17 interviewees for their review and with a request to provide any corrections or clarifications (Malsch and Salterio, 2016).¹¹ Although no interviewee notified us of either material omissions or errors in the detailed interview notes, four interviewees provided minor wording changes which are included in the paper. In addition, we shared our paper with all 21 executive directors whom we invited to comment on our findings (Power and Gendron, 2015). Their feedback was complimentary and suggested that findings were interesting and informative.

3.2. Analysis of interviewees' responses

Each of the researchers independently reviewed the responses from all executive directors who participated in the study. After this process was completed, following Bauer and Estep (2019), we discussed what we had learned, combined our

⁷ We did not observe any systematic differences across responses obtained from the executive directors via email compared to responses obtained from executive directors with whom we conducted a video conference. In addition, we were able to obtain follow-up responses from the four executive directors who originally provided answers to our questions via email such that our data gathering approaches were generally parallel.

⁸ It is common for interview-based studies to report word counts; however, because we do not have verbatim transcripts to obtain such data and we do not report these counts.

⁹ The research reported in this paper and the use of human subjects was reviewed and approved by the Institutional Review Board (IRB) where the research occurred. The IRB is the university's office that protects the rights and welfare of human research participants.

¹⁰ Pratt (2009, 859) recommends disclosing the relationship between the researcher and the researched because doing so "informs the reader about how you approached your study" and is important to a study's credibility. None of the researchers has either a close personal or professional relationship with any of the interviewees. Moreover, none of the researchers served on a state board of accountancy or had other regulatory responsibilities that would create a conflict of interest or potential bias in analyzing the data or reporting findings from the study.

¹¹ Of the 21 executive directors, we received written responses from four. It was therefore not necessary for them to verify our notes.

insights, and selected quotes for inclusion in the paper. We present and discuss “power quotes” that depict some of the most interesting observations from our interviewees and “proof quotes” that are representative of general observations from multiple interviewees (Pratt, 2009; Westermann et al., 2019). To faithfully tell the stories of the executive directors, we also performed a deviant analysis to identify outlier comments or minority views (Power and Gendron, 2015). This process is important because reported responses represent unique experiences of different individuals and may include perspectives and insights that are at odds with those obtained from others (Malsch and Salterio, 2016). In accordance with qualitative research methodology, we worked to strike a balance between “showing” (i.e., using quotes) and “telling” (i.e., interpreting and explaining our findings) in reporting our analysis (Golden-Biddle and Locke, 2007). We use a non-anonymous “state” identifier because our study examines matters of public policy and executive directors responded to our questions in their capacity as public officials such that attribution to a state is appropriate.

To further summarize and analyze our data and identify first-order concepts, two of the authors independently coded responses to our interview questions using Microsoft Excel (as later presented in Table 1 and Fig. 1). One author first read and categorized interviewee responses into thematic categories. These categories were not identified ex ante, but were allowed to arise from the reading of responses and evolve during the coding process (Miles and Huberman, 1994). A second author independently read responses and categorized them based on the categories identified by the first author. This coder was free to identify new categories during the coding process, however, no new categories were identified. Because our questions inquired about non-technical matters, the identification of categories was not complex. Our coding approach is consistent with the process reported in Jenkins et al. (2018b) and Griffith et al. (2015). The initial agreement on coding between these two authors came to 96.95 %, with an intercoder reliability (Cohen’s κ) of 0.9324. After the two authors completed their initial analysis and categorizations, the third author reviewed the assigned categories and resolved any differences. We expected this high level of agreement given the objective nature of the coded items (i.e., whether a state board took a particular action or maintained a specific policy) and our efforts to confirm the accuracy of our interview notes (which we used to code the items).

After completing the initial data coding described above, we engaged in a robust discussion to identify higher level second-order themes in our data. This process required a careful reading and consideration of the data and involved discussions among the researchers that captured the relationships and connections among the first-order concepts in our data. Finally, we grouped similar themes into several aggregate dimensions which provide the basis for a theoretical understanding of our study’s data. Our analysis approach is similar to those used by Corley and Gioia (2004) and Stolowy et al. (2019). We present our final data structure along with a discussion of our findings in the Discussion and Conclusion section.

4. Results

4.1. Overview

As previously mentioned, our interviews focused on three key areas: (1) the immediate and anticipated impact of COVID-19 on state board daily functions, operating budgets, and staffing levels, (2) the effects of COVID-19 on state-specific CPE requirements, and (3) whether state boards implemented NASBA recommendations related to CPE (i.e., allowable course formats and reporting deadlines) and the CPA exam (i.e., expiration of Notices to Schedule and exam credits) matters. In this section, we share our findings with regards to these three areas and present analyses of the varying resources state boards had available to navigate the pandemic.

4.2. RQ1 – Impact on state board operations

To understand the impact of COVID-19 on state board operations, we began by asking whether the pandemic had any immediate effects in March 2020 on board functioning and the ways board staff worked. In general, the state boards we study shifted to remote work; however, boards that did not had to navigate the challenges of having limited staff onsite due to capacity constraints and social distancing requirements. We also note that in several instances changes implemented prior to COVID-19 laid the groundwork for a smoother transition for both board staff and licensees. For example, Tennessee was able to minimize the impact of COVID-19 on board operations given other changes it had recently made to work arrangements¹²:

AWS, alternative workplace solutions, was implemented a few years ago by the Governor to reduce the real estate footprint.¹³ From that point, we were working from home three days a week and in the office two days a week. Having already had this in place, we just moved to working only from home, which was a smooth transition. A lot of the work we do is paperless, which dates back a few

¹² Here, and throughout the study, comments from executive directors have been sanitized to remove references to specific individuals such as staff members or other executive directors.

¹³ This statement refers to the Governor of Tennessee implementing alternative workplace solutions (AWS), which is a “cultural and physical transformation that uses non-traditional workspaces to promote efficiency and flexibility across state government” (Tennessee.gov, 2022). In doing so, “AWS reduces square footage needs across state-owned, managed and leased facilities by creating policies and workspaces that allow employees flexibility in their work style” (Tennessee.gov, 2022).

Table 1
State Boards' Responses to COVID-19.

	Alabama	Arizona	California	Florida	Georgia	Idaho	Illinois	Iowa	Kentucky	Louisiana	Mississippi	Nevada	North Carolina	Ohio	Oklahoma	Pennsylvania	South Dakota	Tennessee	Texas	Virginia	Washington
In response to COVID-19, the state board...																					
allowed (or continued to allow) CPE reporting until at least October 31, 2020 (or provided accommodations for extensions based on local deadlines and policies)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
provided a blanket extension on Notice to Schedule until at least December 31, 2020	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
provided a blanket extension on CPA Exam credits until at least December 31, 2020	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓		✓	✓		
decreased current fees and/or allowed for fee waivers (e.g., individual CPA license renewal, original application, firm fee, etc.)		✓								✓											
allowed (or continued to allow) self-study CPE	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
issued (some) waivers on the required number of CPE hours	✓				✓				✓		✓	✓		✓							
issued (some) waivers on required CPE topics														✓							
modified/suspended the previously planned 2020 CPE audit schedule/coverage			✓		✓				#	✓		✓						✓			
Given the impact of COVID-19, the state board...																					
avoided decreases to its current operating budget	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
expects future operating budgets to be unaffected (i.e., will not decrease due to COVID-19)	✓					✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓

Legend:

✓Indicates a positive/affirmative response.

#Executive director indicated that it is too early to know the response to this question.

Indicates a response was not obtained for the respective state board/question combination.

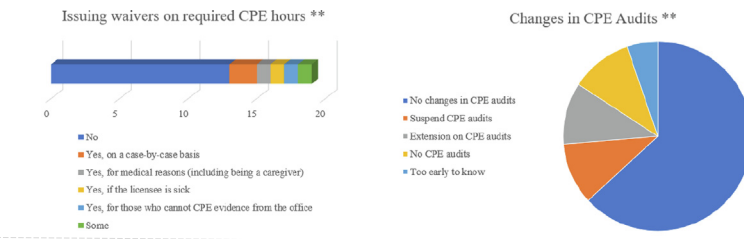
State boards responded similarly to several questions that are not included in this table. Specifically, all state boards interviewed: (1) allowed (or continued to allow) CPE program sponsors to convert registered live programs into virtual presentations, (2) allowed (or continued to allow) online options for courses, trainings, and/or conferences, (3) expect future fees (e.g., individual CPA license renewal, original application, firm fee, etc.) to be unaffected (i.e., will not increase due to COVID-19), and (4) expect board staffing levels to be unaffected. Furthermore, none of the state boards interviewed deferred planned changes to the rules regarding the ways a licensee can earn CPE (e.g., a new CPE requirement for an ethics course). Note that we did not obtain responses to these five questions from Arizona, and only obtained a response to the first question from Iowa.

Impact on State Board Operations

Top 5 Reported: Immediate impacts of COVID-19	
16	Board meetings moved to virtual format
13	Staff sent home
6	Staff rotated days in the office
5	Increased technology for staff: VPNs / cell phones / laptops
2	Office calls forwarded to cell phones

Top 5 Reported: Lessons learned from COVID-19	
9	Need to better leverage/invest in technology
9	Virtual meetings are effective, well attended, and less costly
7	Need to be more flexible with telework / alternative work solutions
5	Still beneficial to have a physical office and live meetings
2	Good communication is critical

Impact on State Specific CPE



Implementation of NASBA Recommendations

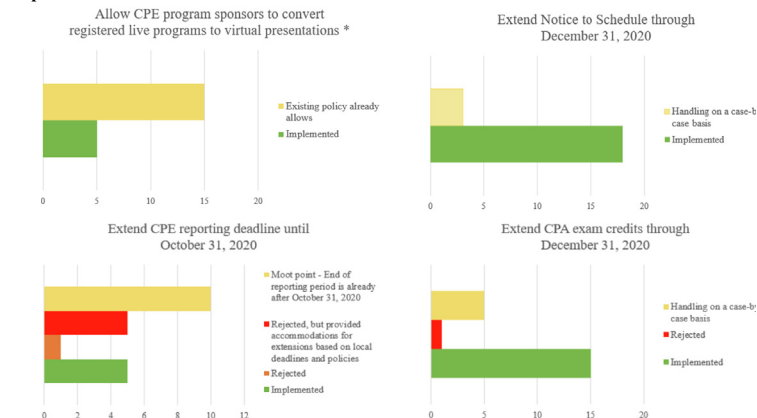


Fig. 1. Infographic of Responses to Select Interview Questions. This figure presents an infographic of responses to select interview questions, organized into the three categories of questions as defined in this study. * Indicates that one executive director did not respond to the question; ** Indicates that two executive directors did not respond to the question.

years to when we moved to a new licensing database. Our board meetings were normally in person, but are now remote and are set up so that the public can attend. – Tennessee¹⁴.

Other states that made similar changes prior to the pandemic also experienced a more seamless transition. In addition, states such as Ohio that made investments in information technology (IT) prior to the pandemic fared better in shifting to remote work:

We put a telework policy into place and board staff were sent home with computers that had just been upgraded. We also got every-one a cell phone to take calls at home. Our board meetings are now happening via Microsoft Teams. – Ohio.

Changes in work style led to both unanticipated challenges and benefits. For example, a few boards had to request executive actions from their governor to be allowed to conduct virtual meetings and hearings while others had to determine whether votes in virtual meetings were legal and binding.¹⁵ At the same time, several executive directors, including those from large states such as California and Florida, noted that virtual meetings were better attended by the public than face-to-face meetings in the past, and that the better attendance allowed them to feel more connected to licensees. Florida is one of the states that had to determine whether virtual board meetings were legal and binding, yet found that these virtual meetings were better attended:

The board used to meet every-six weeks and would travel around the state to meet. When COVID hit, they moved to virtual board meetings. We were trying to decide whether the board had to physically be in the same room to have a legal vote. Ultimately, the state decided that virtual board meetings were binding. Lots of people attended the virtual meetings since they are public. Previously, not many people would come and watch, but under the virtual format many people have been attending. We also have much more participation now from stakeholders. – Florida.

Besides determining the legality of board meetings, other unexpected challenges included redesigning processes and safeguarding assets, like California experienced:

We quickly shifted employees to telework when the offices were closed to the public in March. Transitioning work from the office to staff members' remote locations has been a departure from typical state procedures, so safeguarding our assets (equipment,

¹⁴ Discussions with executive directors revealed that laws in many states required board meetings and hearings to be in-person to be legally binding prior to the onset of COVID-19. State boards must make their meetings available to the general public given their responsibility to protect the public interest. Although not a specific interview question, we learned that during the pandemic, states announced their board meetings and hearings on their website, where the general public could obtain a link to the live meeting and/or recordings of previous meetings. State boards also allowed public interaction in these meetings, which oftentimes involved the board recognizing any requests to speak prior to the commencement of the meeting.

¹⁵ We use the following terms to describe proportions of interviewees throughout the remainder of the study: "few" represents 20 percent or less, "some" represents 21 to 40 percent, "about half" represents 41 to 59 percent, and "most" and "many" represent 60 percent or greater (Westermann et al., 2015).

information, etc.) was a priority. As staff access to the physical applications and other materials was now limited, new workflow was designed and implemented to streamline the processing of the issuance of licenses. The board and committee meetings also pivoted to virtual platforms. – California.

We also spoke to executive directors who faced challenges stemming from inadequate, or nonexistent, virtual private networks (VPNs), home computers, and even cell phones. Boards heavily dependent on paper-driven processes faced some of the greatest challenges, as such processes required employees to be in the office:

Key employees were set up for teleworking. They don't have the IT support for taking remote calls, and some didn't have a VPN. So, all of these things had to be addressed. Every-one teleworked for about a week, even though this was not mandated by the state Governor. Some people continued to work from home and then some people came to the office. We have a very paper driven process, so people have needed to come in, and also to come in to take phone calls. – Virginia.

There are also boards that experienced multiple challenges. Louisiana, for example, had a paper-driven process, lacked the technology needed to work remotely, and had to confront the legal implications of virtual meetings and remote work:

We have a very paper-based and manual operation, and were not prepared (and remain ill prepared) to work from home. Our database is not in a cloud that can be accessed anywhere, so things are difficult working in a remote environment. COVID added a lot more layers of work on the board given all the proclamations being issued by the Governor. We probably spent the first month not knowing if we were doing work legally by having people in the office, and given our reliance on paper and manual procedures, we needed to have staff onsite. We also didn't know if we were allowed to pay staff given the stay-at-home order, but we continued to and eventually had it approved that the work staff were doing could be compensated. There was lots of initial confusion, and we had to spend a lot of time figuring out what they were allowed to do and how to do it. – Louisiana.

After discussing the impact to operations, we inquired about the financial effects. To begin, we sought to understand the level of autonomy the state boards have over their operating budgets. Of the 21 boards included in the study, only five (Florida, Georgia, Idaho, Iowa, and Mississippi) reported not having budget autonomy, while the remaining boards reported being fully or semi-autonomous.

To further examine state board finances, we asked about COVID-19's effects on state board operating budgets and fees, both immediate and longer-term effects. In general, boards did not make immediate operating budget cuts, and the few that did made only modest adjustments to their current budget. Some executive directors noted that much of the anticipated cost savings that they identified stemmed from the elimination of travel along with reduced office costs from not having staff onsite. Executive directors from Louisiana and Virginia also noted a decrease in fees stemming from the reduced pipeline of CPA candidates, but each executive director admitted to not knowing if this was attributable to COVID-19 or to prior trends already showing a decrease in the number of CPA candidates. In terms of current operating budgets, California implemented one of the more proactive approaches to cost cutting:

The State has provided direction to departments to limit expenditures and hiring to those necessary to support core functions, emergency response activities, and the ability to maintain operations in a telework environment. In addition, in response to the State's economic crisis caused by the COVID-19 pandemic, effective July 1, 2020, each full-time employee received a 9.23 percent reduction in pay in exchange for 16 h of leave credits. – California.

In terms of future operating budgets and fees, most states did not anticipate ongoing cuts or fee increases. However, five states (California, Florida, Georgia, Louisiana, and Ohio) were making (or anticipating) cuts that will impact operations. California provided the following details on its efforts to reduce future operating budgets:

Our board will assume a permanent five percent reduction in operating budget, which is in addition to the employee compensation savings that became effective July 1, 2020. The employee compensation savings is expected to be in place for two years. – California.

Georgia highlighted the impact these cuts are expected to have on enforcement-related activities:

The FY 21 budget (year end June 30, 2021) is taking a 14% reduction, which was originally supposed to be a 6% reduction before COVID. This will have an incredibly negative impact on the second half of the year for our board of accountancy. This is barely enough to keep going and will severely impact enforcement activities. Exams and licensing will hopefully continue as planned, but the decrease in funds will impact things like CPE audits and hearings on misconduct issues. Things will be very tight. – Georgia.

Most executive directors noted that there were no changes to current fees (i.e., individual CPA license renewal fees, original application fees, or firm fees). Only Louisiana reduced firm fees for in-state businesses based on guidance from its governor, and Arizona was allowed to temporarily waive fees. With respect to future fees, almost all executive directors did not anticipate increased fees due to the pandemic. In fact, only one executive director (California) commented that fees might need to be increased to address anticipated cash flow shortages. Even with the financial impact of COVID-19, none of the executive directors expected cuts to board staff positions.

In closing, our discussions on the effects of COVID-19 on state board operations, we asked what lessons had been learned during the pandemic that might influence future operations, and what changes had been made in response to COVID-19 that were likely to remain in place. Most executive directors indicated that policies regarding remote work and virtual meetings will continue, but some commented that there is value in maintaining a physical work environment. Further, investments in technology are critical, including the move away from paper-based systems. Finally, while the transition to remote work was and continues to be disruptive, this new environment has also led to gains in efficiency (e.g., meetings are more to the point), more flexibility (e.g., hybrid meetings where not every-one needs to be physically present), and cost savings (e.g., reduced travel and hosting of events). Some other examples of lessons learned include: technology used during the pandemic helped California to facilitate teleworking and virtual meetings that were ultimately less expensive and better attended; Idaho high-

lighted the benefits of virtual meetings, and is considering hybrid meetings in the future; for Pennsylvania, the underlying lesson focused on remaining flexible; and in Tennessee, the board remains open for new ways to use technology in future operations. Finally, some executive directors acknowledged the importance of technology but also mentioned the advantages of face-to-face interactions. For example, Kentucky's executive director was one of several interviewees to note a specific reason to go back to in-person board meetings:

The Board was meeting physically before the pandemic and then went virtual, but the plan is to get back to meeting in person when the pandemic is over. We miss the small talk and the relationships built between board members. You lose something when you don't meet in person. – Kentucky.

Similarly, the executive director from Texas expressed concern regarding the challenge associated with decisions related to work arrangements:

I'm not convinced an alternative work scenario is in the best interest of the board or for the workers, as some people might lose their edge or become complacent by not coming into the office. It's a balancing act with the work from home options, but we will revisit these options when COVID passes. – Texas.

4.3. RQ2 – Impact on state-specific CPE

Our interviewees shared that some licensees expressed concerns about how to earn CPE during the pandemic. Given the importance of maintaining the CPA credential, we asked about changes implemented to help licensees earn CPE. In terms of allowing more online options for CPE, most states had policies in place for online learning that were flexible enough so that no additional changes needed to be made in response to COVID-19. Still, three states (Alabama, South Dakota, and Texas) allowed for more online options and/or allowed a grace period for live instruction to be transitioned to online delivery. Prior to COVID-19, most states already allowed unlimited self-study CPE, and thus did not need to modify this policy. However, two states (Iowa and Pennsylvania) with limits on the number of self-study hours temporarily relaxed these limits. Two other states (Illinois and Texas) that had allowed limited self-study prior to the pandemic did not adjust this policy, while Florida maintained its pre-existing ban on self-study CPE.

When asked whether states were issuing waivers on the required number of CPE hours in response to COVID-19, most executive directors responded that they were not issuing such waivers. Of the remaining states, two (Kentucky and Nevada¹⁶) were considering waivers on a case-by-case basis, one (Ohio) was issuing "some" waivers, one (Alabama) was issuing waivers for medical reasons (which could include being sick or acting as a caregiver), one (Georgia) was issuing waivers for licensees who could not get to their office to provide evidence of CPE completion, and one (Mississippi) was continuing its existing practice of waiving penalty hours (i.e., for CPE not earned during the reporting cycle) if a licensee was sick. We also asked whether boards were issuing waivers on required CPE topics, and found that most states did not adjust these requirements in response to the pandemic. However, Ohio allowed adjustments to required tax and audit topics to help licensees re-enter the profession:

There are lots of people coming back into the CPA profession from consulting, and they need 24 h of audit or tax depending on their focus. We've waived some of these hours to help get people back into practice. – Ohio.

We also asked whether state boards modified their approach to ensure proper reporting of CPE, including whether additional CPE audits would be performed as a result of COVID-19. Thirteen executive directors reported no changes had been made in response to the pandemic. However, three state boards (California, Louisiana, and Nevada) suspended CPE audits, with Nevada's executive director commenting:

We're not performing CPE audits this year since lots of people did not have access to their files/offices. We've also waived all penalties stemming from 2019. As for calendar year 2020, if individuals can express how they've had a hardship, our board might extend these people on a case-by-case basis. In waiving the CPE audit this year, we'll likely increase the percentage of those audited next year. – Nevada.

Two states, Georgia and Tennessee, provided extensions on CPE audits, with Georgia's executive director commenting:

There have been some issues if people had documentation in their office that they couldn't access, so some of them were given extensions until they could get into their offices to gather their CPE evidence. – Georgia.

Executive directors from Georgia and Louisiana predicted that they would perform fewer CPE audits in the future, in part due to lower operating budgets, while Kentucky's executive director commented that it was too early to know the impact of COVID-19 on 2020 CPE audits.

4.4. RQ3 – Implementation of NASBA recommendations

A priori, it would seem that some level of centralized governance or leadership would be helpful for distributed bodies to figure out how to navigate an event as significant as a pandemic. For state boards of accountancy distributed throughout the U.S., this centralized body is most likely NASBA. To begin, we did not know whether recommendations from NASBA had previously influenced the decisions of the state boards, and therefore asked about this influence. In general, the executive direc-

¹⁶ Although Nevada did not approve extensions to CPE requirements, the Board did waive penalties if delays occurred in obtaining the CPE within the calendar year required based on hardships from the pandemic.

tors viewed NASBA as a partner rather than as an authoritative body. Seven executive directors indicated that NASBA recommendations were typically “more-so” influential, in that they followed NASBA closely and depended on their guidance. Nine executive directors indicated that NASBA recommendations typically carried “some” influence, in that they would choose whether the specific guidance fit with the state’s needs. Finally, three executive directors indicated that NASBA’s recommendations had typically been “less-so” influential, in that they remained aware of the recommendations but also felt free to act independently.¹⁷ The executive directors also largely downplayed the significance of regional influences from other state boards. Rather, they believed that any influence from other state boards came from executive directors with whom they had built close relationships.

NASBA made several recommendations to state boards during the pandemic. Four of these recommendations include: (1) allow CPE program sponsors to convert registered live programs to virtual presentations, (2) extend CPE reporting deadlines due to cancelled conferences and shifts in busy season, (3) extend CPA candidates’ Notice to Schedule expiration dates, and (4) extend CPA candidates’ exam credit expiration dates (NASBA, 2020; NASBA, 2021b). We asked executive directors whether their state adopted this guidance, and if not, why not.

For the first recommendation, to allow CPE program sponsors to convert registered live programs to virtual presentations, five states approved this change while another 15 states already had policies in place that were flexible enough to accommodate this shift without any change in policy.¹⁸ States that subscribed to the NASBA registry of CPE providers relied on the fact that if the CPE provider remained compliant with NASBA requirements, then the state did not need to perform additional gatekeeping on the provider for online courses. Other states allowed non-NASBA registry CPE providers, as long as the course met specific-state requirements for online delivery. Comments from South Dakota and Louisiana help illustrate the transition to an online delivery method:

Group live was already allowed to be counted as online. Some providers on NASBA’s registry weren’t approved for group-online, so we allowed any of those providers who had only been approved for group-live to be allowed to provide group-online from March to June 2020. This then gave these providers time to be approved by NASBA for group-online courses. – South Dakota.

We have always allowed CPE credits for webinars and online, without limits. So, these were already in place and accepted. Vendors just needed to convert the course to an appropriate online course format (for example, by meeting certain provisions such as polling questions and ways to make sure the attendee was engaged with the course), then these online courses could be implemented. – Louisiana.

NASBA also recommended that state boards extend CPE reporting deadlines until October 31, 2020 due to cancelled conferences and shifts in busy season. Here, five states accepted the guidance, one rejected it, five rejected it but provided accommodations for extensions based on local deadlines and policies, and for the ten others it was irrelevant because the end of their reporting period was after October 31, 2020.¹⁹ In terms of meeting minimum hours in individual years, no executive director indicated that meeting these minimum annual requirements presented challenges to licensees, so no state waived these requirements.

The last two recommendations from NASBA dealt with the CPA exam. First, NASBA recommended that state boards extend expiring Notice to Schedule for the CPA exam through December 31, 2020. Most states followed this guidance, some of which by default because they outsource CPA exam administration to NASBA’s CPAES. Boards that did not provide a blanket extension for Notice to Schedule (Florida, Idaho, and Ohio) were considering extensions on a case-by-case basis. It was also highlighted that Notice to Schedule extensions were particularly important to international candidates who could not take the CPA exam in their home country and were not able to travel. As one executive director commented:

A lot of foreign candidates are having to travel to other countries to take the exam, so this is becoming problematic in keeping this policy consistent for all of our state’s candidates around the world. – Virginia.

NASBA also recommended that state boards extend CPA exam credits through December 31, 2020, and most states followed this guidance. Of the remaining states, only one executive director (North Carolina) commented that credits would not be extended through December 31, 2020 while the remaining five (Idaho, Ohio, South Dakota, Virginia, and Washington) were handling extensions on a case-by-case basis. Similar to the issues noted with Notice to Schedule, international candidates remained a group with a heightened need for exam credit extensions due to not having testing centers in their home country. One state, South Dakota, not allowed to issue a blanket extension on exam credits worked around the issue using a brute-force tactic:

We are only allowed to approve extensions on a case-by-case basis, so we reached out to those with expiring credits and had them submit letters to the board, which approved them all individually through the end of the year. We weren’t allowed to otherwise implement blanket extensions. – South Dakota.

¹⁷ States that indicated “more-so” influence include: Florida, Georgia, Iowa, Nevada, Tennessee, Texas, and Washington. States that indicated “some” influence include: California, Idaho, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Pennsylvania, and Virginia. Finally, states that indicated “less-so” influence include: Alabama, Ohio, and South Dakota. A response to this question was not received from three states.

¹⁸ States that approved this change include: Idaho, North Carolina, Oklahoma, South Dakota, and Texas. States that already had policies in place flexible enough to accommodate this shift include: Alabama, California, Florida, Georgia, Illinois, Iowa, Kentucky, Louisiana, Mississippi, Nevada, Ohio, Pennsylvania, Tennessee, Virginia, and Washington. A response to this question was not received from one state.

¹⁹ States that accepted this guidance include: Arizona, California, Florida, Louisiana, and Mississippi. Alabama rejected this guidance due to the proximity of the proposed change to its existing deadline of September 30. States that rejected the guidance but provided accommodations include: Illinois, Iowa, South Dakota, Tennessee, and Texas. Finally, this guidance was irrelevant to the following states because the end of their reporting period was after October 31, 2020: Georgia, Idaho, Kentucky, Nevada, North Carolina, Ohio, Oklahoma, Pennsylvania, Virginia, and Washington.

Based on the range of responses, it appears that each state board experienced the pandemic and/or addressed the associated challenges in a unique way (see [Table 1](#) and [Fig. 1](#) for a summary of state board responses). Even so, each board navigated COVID-19 in the sense that each maintained critical operations, did not reduce staff, and is working on future plans. However, there are state boards that seemingly managed the pandemic with less difficulty because of investments in technology or implementation of alternative work solutions, which motivates an examination of the resources boards had available to navigate COVID-19.²⁰ In the next section, we examine these resources and how they varied among state boards.

4.5. Supplemental analyses

4.5.1. State board resources

To analyze the varying resources that state boards had available during the pandemic, we gathered additional data from the executive directors, NASBA, and other publicly available sources. During interviews, we asked executive directors about the number of staff that work for their respective state board. Then, from NASBA, we obtained the number of persons regulated by state (as of May 2020), whether the state uses NASBA's CPAES (as of November 2020), the state boards' CPE reporting period type (i.e., annual, biennial rolling, biennial fixed, triennial rolling, or triennial fixed), and the current CPE reporting period end date. Finally, from publicly available sources, we gathered all available state board operating budgets from 2008 to 2016 along with state population data (as of 2019).

Our analyses of board resources began by creating a visualization to examine the geographic distribution of states in our study, on top of which we layered the number of persons regulated by state and the number of staff working for these respective boards. The resulting visualization, as presented in [Fig. 2](#), suggests there are no obvious regional concentrations with higher numbers of board staff or persons regulated. Staff sizes range from 2 in Iowa to 99 in California (average size 13.3), while persons regulated ranges from 1,775 in South Dakota to 99,167 in California (average size 22,992). California and Texas appear to stand apart from the other states in terms of the number of board staff (99 and 40) and persons regulated. Based on untabulated analyses, we also note that Arizona, California, Idaho, Mississippi, Oklahoma, and South Dakota have one board staff member for approximately every 1,000 persons regulated. In other states such as Georgia, Illinois, Iowa, Kentucky, and Ohio, the ratio of board staff to persons regulated is noticeably lower.²¹ These data suggest a wide disparity in the number of board staff available to serve the persons regulated during the pandemic.

For boards with fewer staff per persons regulated (i.e., lower ratios), it would be reasonable to seek assistance in running operations by outsourcing resource-intensive functions, such as services related to the CPA exam. NASBA offers a centralized service, CPAES, to assist states with administering the CPA exam. It is reasonable to expect that boards with lower ratios might outsource such services, thus freeing up staff to work on non-outsourcable functions. Based on untabulated analyses, we find that boards with lower staff to persons regulated ratios are more likely to outsource CPA exam administration responsibilities to NASBA, which likely benefited them during the pandemic.

As just discussed, state boards have options for how to accomplish required tasks with fewer board staff (e.g., by utilizing NASBA's CPAES). State boards might also lessen the burden of administrative duties by opting for less frequent CPE reporting / license renewals, which could free up resources. Five CPE reporting periods are used by state boards: annual, biennial rolling, biennial fixed, triennial rolling, and triennial fixed. Here, "rolling" indicates that licensees must remain in compliance with CPE requirements within any two (or three) year window, while "fixed" indicates that compliance is measured within set two (or three) year windows. Based on the five available options, we interpret the administrative burden of these reporting periods on state boards to be (from most to least burdensome): annual, biennial rolling, triennial rolling, biennial fixed, then triennial fixed. Upon examining (untabulated) states that use these different reporting windows and how many board staff they employ per 1,000 persons regulated, we find that states with more administratively burdensome reporting periods (i.e., annual) also have a higher (on average) number of board staff. We also examine (untabulated) the average operating budget for boards per person regulated, and find that (on average) states with more frequent reporting also have higher operating budgets per capita.

²⁰ Several examples from this section help demonstrate the range of state boards' preparedness for the pandemic. In Tennessee, changes implemented before the pandemic put the state in a position to better navigate COVID-19. For instance, prior to the pandemic, the governor imposed modern technologies on state agencies to better enable remote work and thus reduce the state's real-estate footprint (i.e., a cost-cutting measure). Tennessee also outsourced its CPA examination services to NASBA and implemented more robust CPE reporting procedures (i.e., beyond a simple "check-the-box" attestation of compliance), a move that helped reduce CPE non-compliance from approximately 29 percent down to 2 percent. The state also implemented a licensing database to replace its manual tracking system, and allowed all CPE to be earned online in a self-study format. These changes prepared Tennessee for a major disruptive event, especially when compared to states such as Louisiana, Georgia, and Virginia. Louisiana maintained historic institutional practices with manual paper-based processes and low reliance on technology. These manual-based processes required a person to be present in the state board's office to deal with issues such as CPE reporting, which involved licensees physically submitting forms. Budget cuts during the pandemic (i.e., as opposed to pre-pandemic cuts) impacted board operations in states such as Georgia, which was left with fewer resources to carry out enforcement actions and CPE audits. Finally, states that lacked certain technologies had a harder time transitioning to telework, such as Virginia when it initially did not have enough virtual private network (VPN) connections for all staff nor the ability to answer office calls remotely.

²¹ Illinois maintains two oversight bodies relevant to CPAs. The Illinois Board of Examiners is specific to CPAs, while the Illinois Department of Financial and Professional Regulation has oversight over various professional licenses (e.g., doctors, nurses, veterinarians, barbers, engineers, detectives, and CPAs). We interviewed the executive director (or equivalent) from each board as part of this study and responded to items relevant to their specific role with Illinois CPAs. However, in presenting and discussing our analyses/results, we do not differentiate which party provided the response to specific items.

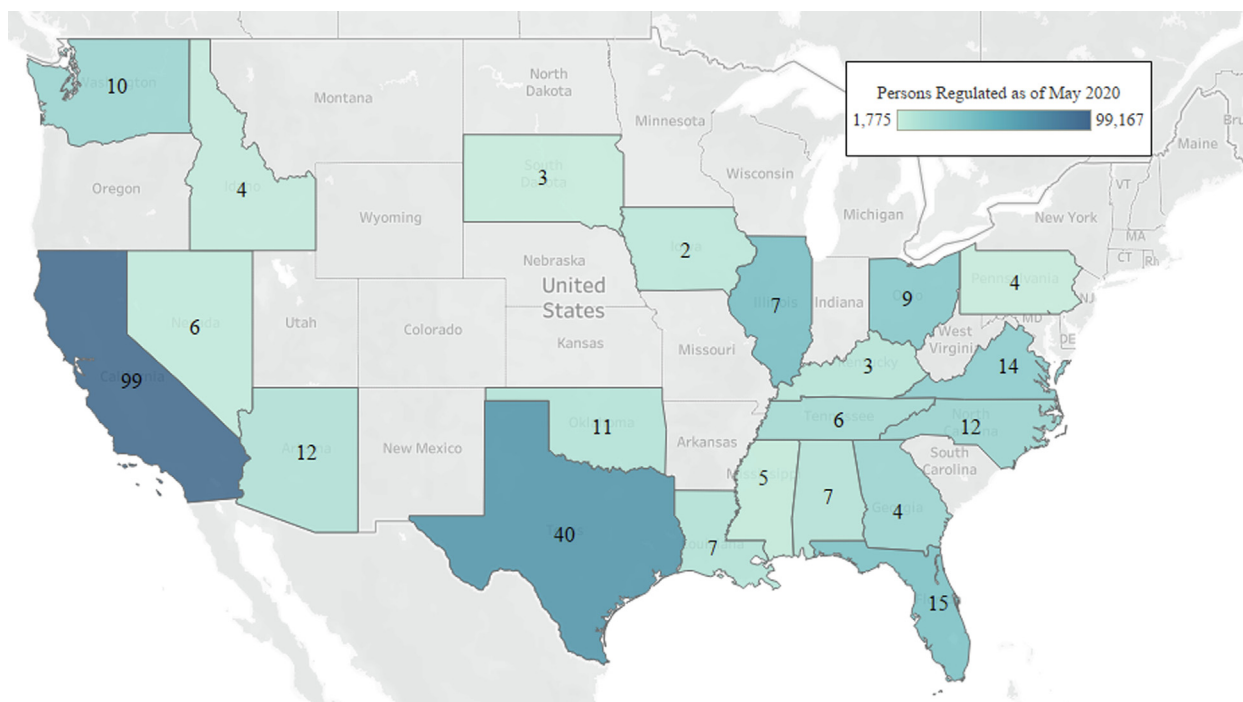


Fig. 2. Heat Map of Persons Regulated (May 2020) Overlaid by Number of State Board of Accountancy Staff. This figure presents the 21 states for which we conducted interviews with the Executive Director (or equivalent) of the State Board of Accountancy (or equivalent). The shade of each state is determined by the number of persons regulated in that state (i.e., active and/or inactive CPA licensees currently paying a renewal fee), and the number presented within each state indicates the size of the board of accountancy staff. Furthermore, interviews were not conducted with Alaska or Hawaii.

The analyses in this section highlight the resources available to state boards, which likely impacted how states managed the pandemic. Specifically, states vary in the number of board staff available to serve persons regulated, and boards with lower ratios were more likely to have already outsourced administratively burdensome tasks related to the CPA exam. Further, boards choose from a variety of CPE reporting periods, and our analyses indicate that boards with fewer staff and lower operating budgets (per person regulated) tend to use less administratively burdensome reporting periods. Together, these state-level decisions likely affected the resources boards had available to address mission-critical functions during COVID-19.

4.5.2. Relative spread of COVID-19

Considering the variability in state board resources and responses to COVID-19, we performed a final analysis to determine whether any state(s) experienced a disproportionate virus case load that might have impacted their response to the pandemic. Using publicly available data from the U.S. Centers for Disease Control and Prevention (<https://covid.cdc.gov>), we developed Fig. 3 to examine the seven-day moving average number of positive case results per 100,000 people for the states included in this study from March to December 2020. This time period reflects the first month in which any meaningful number of positive tests occurred in the U.S. through the final month of our interviews. As shown in Fig. 3, several states appear to have experienced periods of noticeably higher virus caseloads during the timeframe studied (e.g., Louisiana, Arizona, Florida, South Dakota, Iowa, and Tennessee). However, our interviews and analyses offer no evidence that these states responded to the pandemic with any more urgency or aggressiveness than the other states studied.

5. Discussion and conclusion

5.1. Understanding our findings through the lens of institutional theory

In this section, we address our second-order goal of organizing and explaining our findings through the lens of institutional theory, including coercive, mimetic, and normative isomorphism. As previously noted about isomorphism, [Mizruchi and Fein \(1999, 657\)](#) find that “two or more [mechanisms] could operate simultaneously and their effects will not always be clearly identifiable.” As such, the discussion of isomorphism that follows presents some of the clearer instances of how our findings can be organized and explained through these mechanisms.

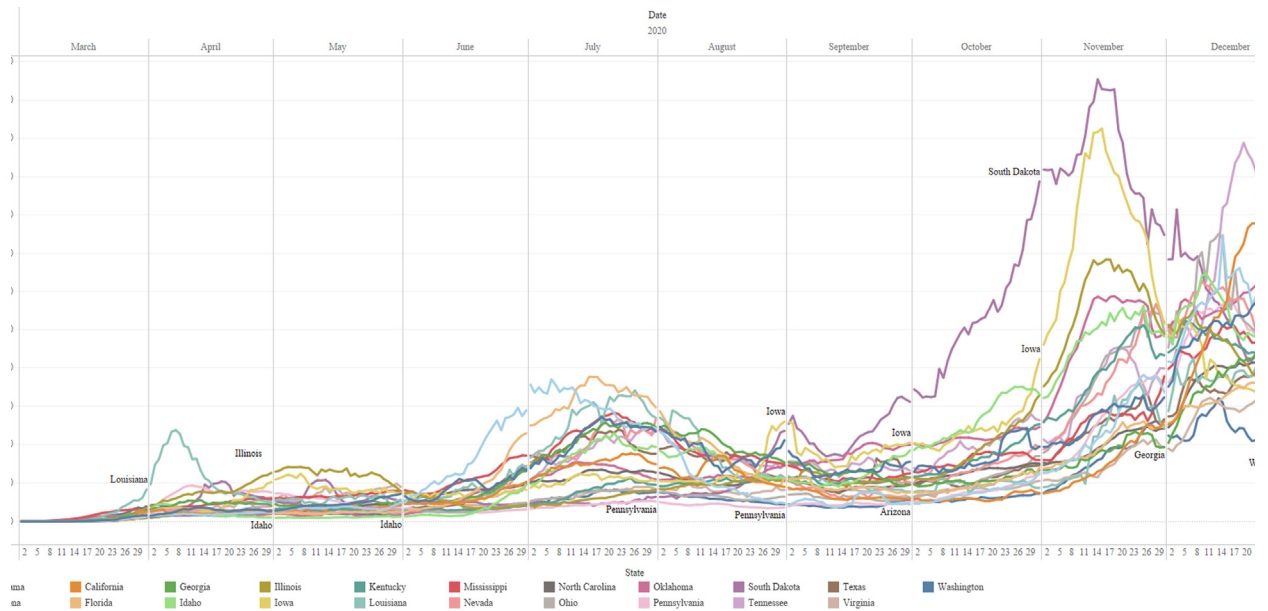


Fig. 3. Spread of COVID-19 from March to December 2020: Seven-Day Moving Average Case Rate per 100,000 People. This figure presents data on the spread of COVID-19 in terms of the seven-day moving average number of positive cases per 100,000 people from March to December 2020 in the states examined in this study (data is publicly available from the United States Centers for Disease Control and Prevention (CDC), at: <https://covid.cdc.gov>). Interviews for this study occurred during the following months: September: Alabama, Georgia, October: Ohio, November: Arizona, Florida, Idaho, Illinois, Iowa, Kentucky, Louisiana, Mississippi, Nevada, North Carolina, Oklahoma, Pennsylvania, South Dakota, Tennessee, December: California, Texas, Virginia, Washington.

As a roadmap for the following discussion, Fig. 4 presents a summary of the connection between first-order concepts and second-order themes, as well as the connection between second-order themes and the aggregate dimensions of coercive, mimetic, and normative isomorphism. Furthermore, the theoretically-based insights articulated in this section are applicable to other accountability bodies outside the U.S. to the extent that they operate in constrained environments such as the state boards in the U.S.

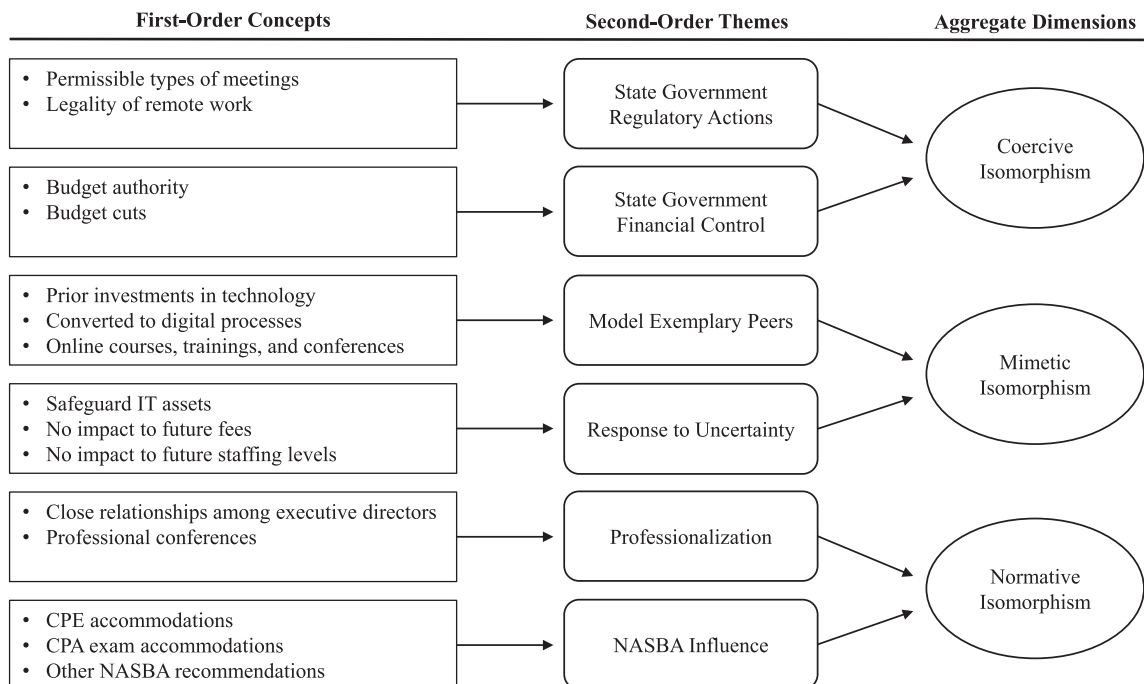


Fig. 4. Data Structure.

A primary tenet of institutional theory is that “individual efforts to deal rationally with uncertainty and constraint often lead, in the aggregate, to homogeneity in structure, culture, and output” (DiMaggio and Powell, 1983, 147). Indeed, in this study, state boards exerted individual efforts to deal with the uncertainty of COVID-19, and did so facing time constraints to abandon in-person work as well as political/resource constraints that dictated various aspects of remote work. State boards also entered the pandemic with differing CPE and CPA exam policies, including various reporting cycles and deadlines. Specifically, in responding to pandemic-induced constraints, state boards adapted key pillars of public protections, such as CPE requirements, CPA exam requirements, and regular board meetings/hearings. By adapting these activities, state boards also sustained their legitimacy, a key organizational goal according to institutional theory (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Zucker, 1987).

5.1.1. Coercive isomorphism

As a result of our discussions about first-order concepts, we identified six second-order themes. The first two themes include: (1) state government regulatory actions and (2) state government financial control. These second-order themes emerged based on first-order concepts such as permissible types of meetings, legality of remote workflow, budget authority, and budget cuts (see Fig. 4). These second-order themes reflect the formal and informal political influences on state boards to conform to certain rules and practices established by their state’s government (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999), and as such fall under the aggregate dimension of *coercive isomorphism*. To further substantiate the presence and/or role of coercive isomorphism on state board responses to COVID-19, several executive directors highlighted that specific board operations could not be changed without first being evaluated and approved by their state’s legislature (e.g., transition to remote board meetings, remote access to records). Furthermore, in some instances, state governors took direct action on matters that impacted state boards. For instance, governors in Idaho, Illinois, Tennessee, and Virginia took actions to explicitly allow the transition to virtual board meetings, while governors in Ohio, Oklahoma, and Texas set a deadline for board staff to return to the office.

5.1.2. Mimetic isomorphism

The third and fourth second-order themes we identified were: (3) model exemplary peers and (4) response to uncertainty. These second-order themes emerged based on first-order concepts such as prior investment in technology, the conversion to digital processes, availability of online courses/trainings/conferences, safeguarding IT assets, and the lack of changes to future fees and staffing levels (see Fig. 4). These second-order themes are representative of responses to uncertainty and the modelling of rules and practices based on an exemplary peer (DiMaggio and Powell, 1983; Mizruchi and Fein, 1999), and as such fall under the aggregate dimension of *mimetic isomorphism*. As further substantiation of the role of mimetic isomorphism on state board responses to COVID-19, state boards appear to have observed how the broader business community and the accounting profession, in particular, pivoted to remote work in light of COVID-19’s impact in the U.S. in early 2020. This shift to remote work likely served as a signal to organizations like state boards of accountancy that it was acceptable to work remotely and conduct historically important face-to-face interactions (e.g., quarterly meetings of the board, enforcement hearings) using online video conferencing technologies such as Zoom or WebEx. In this way, state boards modelled themselves after the broader business community and transitioned their operations to a remote environment. This change is consistent with how Greenwood et al. (2002) discuss legitimized changes. Here, state boards had little time to theorize (i.e., assess) the change, and cues of legitimation came from the wider business world and accounting profession who quickly adopted such practices (e.g., Jenkins et al., 2022; Luo and Malsch, 2022; Deloitte, n.d.; EY Foundation, n.d.; PwC, n.d.).

5.1.3. Normative isomorphism

The fifth and sixth second-order themes we identified were: (5) professionalization and (6) NASBA influence. These second-order themes emerged based on first-order concepts such as close relationships among the state boards executive directors, professional conferences, CPE and CPA exam accommodations, and (other) NASBA recommendations (see Fig. 4). We believe these second-order themes are representative of organizations adopting similar rules and practices as a result of employees’ common formal education as well as their participation in similar professional networks, trainings, conferences, and trade associations (DiMaggio and Powell, 1983), and as such fall under the aggregate dimension of *normative isomorphism*. To further substantiate the role of normative isomorphism on state board responses to COVID-19, many executive directors mentioned being influenced by close personal relationships with other executive directors developed over time at NASBA meetings, a professional network effect indicative of normative influences. Furthermore, in terms of formal education, many executive directors are CPAs and/or have a business financial background, meaning there is considerable overlap in their university and/or professional education, which also contributes to normative isomorphism.

5.1.4. Theorization and professional associations

Greenwood et al. (2002) discuss the importance of professional associations in providing an arena to theorize (i.e., assess), legitimate (i.e., endorse), and diffuse (i.e., communicate) changes. As discussed throughout this paper, NASBA is the leading professional association for U.S. state boards of accountancy. In response to the pandemic, NASBA made recommendations to state boards related to CPE (i.e., allowable course formats and reporting deadlines) and the CPA exam (i.e., expiration of Notice to Schedule and exam credits). Given the various pre-existing allowable CPE course formats and reporting deadlines across state boards, we do not observe blanket adherence to NASBA’s recommendations. For instance, some states operate on

a bi-annual or tri-annual CPE reporting cycle, such that adjusting these requirements for 2020 was moot. However, having a professional association like NASBA to theorize, legitimize, and diffuse these changes may have signaled to state boards that it was acceptable, or even responsible, to implement modified CPE and CPA exam policies to help licensees and CPA exam candidates navigate the challenges of the pandemic.

5.2. Conclusion

Each state board of accountancy experienced challenges during the COVID-19 pandemic, yet each implemented responses to maintain operations and their charge to regulate the accounting profession. Our study reveals several ways in which state boards experienced and/or responded to the pandemic differently, including board staff capabilities to work remotely, limitations/benefits of available information technology, CPE requirements/extensions, and CPA exam deadlines/extensions. While some boards were well equipped to transition to remote work, it was surprising that others did not have the technology or processes in place to support such a transition. Multiple executive directors mentioned their eagerness to return to face-to-face interactions, but also acknowledged the increased attendance at virtual board meetings. We note with interest that an increasing number of businesses are embracing either remote work or hybrid work arrangements; such mimetic isomorphic forces may alter the plans of these executive directors. Some executive directors even highlighted that they were deemed essential personnel within their state which afforded them more freedoms to continue their work. These examples show the importance of CPAs to states' economies. Finally, it should be noted that some changes implemented in response to the pandemic are likely to be permanently adopted, such as (the option for) virtual board meetings, expanded options for public access/participation in board meetings, and flexible work arrangements for board staff.

COVID-19 exposed lingering weaknesses in state boards and forced many to go through a long-overdue modernization in processes and thought. While each state board's response to the pandemic could be a case study in itself, the collective responses observed in this study suggest that boards achieved a largely homogenous response, a phenomenon consistent with institutional theory. Indeed, updated technologies and shifts to alternative work solutions (i.e., teleworking) have created a state board environment now positioned to withstand some of the greatest organizational challenges posed by a pandemic or similarly disruptive event.

Data availability: *Data used in this study are available upon request and by permission granted by individual U.S. state boards of accountancy.*

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data availability

Data will be made available on request.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Interview script

1. Demographic questions
 - a. What is the number of board staff?
 - b. Does the board have budgetary autonomy?
 - c. What is the number of licensees in your state?
2. What are you hearing from licensees in your state and how COVID-19 is affecting their work (i.e., new challenges licensees are facing due of COVID-19).

If interviewee introduces NASBA in their response, ask the following:

3. NASBA recommended that state boards allow CPE program sponsors to convert registered live programs to virtual presentations. Did your state board adopt this guidance directly or in some modified format? If not, why not?
4. NASBA recommended that state boards extend CPE reporting deadlines due to cancelled conferences and shifts in busy season. Did your state board adopt this guidance directly or in some modified format? If not, why not?
5. NASBA recommended that state boards extend CPA candidates' notice to schedule (NTS) expiration dates. Did your state board adopt this guidance directly or in some modified format? If not, why not?
6. Have recommendations from NASBA previously influenced the decisions of your state board? Do you think these influences will continue in the future?

7. Please briefly summarize any changes to policies / regulations / requirements that licensees are asking of your state board in response to COVID-19. [e.g., Peer Review]
8. Have you implemented any other changes that are intended to help licensees comply with state board requirements during COVID-19? If so, can you describe?

COVID-19 impact on state board

9. Did COVID-19 have any immediate impacts (i.e., near the time of March 2020) on the operations of your state board? By operations, we mean the functioning of the board and the ways in which employees carried out their work.
10. What immediate financial impact has your state board experienced due to COVID-19?
 - Your current operating budget has (**please check one**):
 - o increased / decreased / not changed
 - Fees (i.e., individual CPA license renewal, original application, firm fee, etc.) in your current operating budget have (**please check one**):
 - o increased / decreased / not changed
11. What longer term financial impact does your state board anticipate due to COVID-19?
 - In the coming year(s), the state board operating budget will (**please check one**):
 - o increase / decrease / not change
 - In the coming year(s), fees will (**please check one**):
 - o increase / decrease / not change
 - In the coming year(s), the number of board staff will (**please check one**):
 - o increase / decrease / not change
12. What lessons have been learned during the pandemic that might impact the future operations of the state board? What changes have been made in response to COVID-19 that will likely remain in place?
13. Are there regional (i.e., neighboring states) influences on your state board's deliberations and decisions related to COVID-19 responses?
14. Have regional influences previously impacted the decisions of your state board? Do you think these influences will continue in the future?

CPE-related questions:

15. What changes has your state board made to rules regarding the ways a licensee can earn CPE as a result of COVID-19? Please indicate whether each of these changes is permanent or temporary.
 - Extended timeframe for reporting of CPE?
 - o Yes / No
 - o Permanent / Temporary
 - Allowed CPE for more online options (courses, trainings, conferences)?
 - o Yes / No
 - o Permanent / Temporary
 - Allowed self-study?
 - o Yes / No
 - o Permanent / Temporary
 - Issued waivers on CPE requirements related to required number of hours?
 - o Yes / No
 - o Permanent / Temporary
 - Issued waivers on CPE requirements related to required topics?
 - o Yes / No
 - o Permanent / Temporary
 - Other (please explain)
 - No changes have occurred

16. How has your state board changed its approach to ensuring licensees properly report their CPE? Is the state board performing more “CPE audits” as a result of COVID-19? If so, can you estimate the % change relative to the prior year? How have these audits changed in response to COVID-19, if at all?
17. Have any planned changes to the rules regarding the ways a licensee can earn CPE been deferred as a result of COVID-19 (e.g., a new CPE requirement for an ethics course)?
 - Yes (please explain)
 - No

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