

# INTERNAL AUDIT STIGMA IMPAIRS INTERNAL AUDIT OUTCOMES

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## Abstract

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Prior research finds that the internal audit function (IAF) plays a critical role in organizations, yet there is still a stigma toward the profession. We examine how this stigma affects internal audit outcomes, using three different data sources: survey results from parts of Europe (113 observations) and the United States (124 observations) for the year 2017 and an experiment (65 observations) in 2018. We find that when internal auditors in parts of Europe and the U.S. believe there is a negative stigma about internal auditing, they report negative work outcomes, including less ability to add value, less influence in the organization, more resistance to implementing their recommendations, and more pressure to change audit findings. Our experimental results confirm the survey findings and provide further evidence that negative stigma causes participants to perceive less value in internal audit reports and that internal audit recommendations are less influential in decision-making. Taken together, the results suggest that negative perceptions of internal audit have a significant impact on the profession.

**Keywords:** Internal Audit, Occupational Stigma, Dirty Work

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## 1. INTRODUCTION

This study is motivated by three different sets of research findings of internal auditing. First, a growing body of studies shows that internal auditing improves the organization in numerous ways, such as improving financial performance (Jiang, Messier, & Wood, 2020) improving risk management (Carcello, Eulerich, Masli, & Wood,

2020), reducing fraud and earnings management (Prawitt, Smith, & Wood, 2009; Prawitt, Sharp, & Wood, 2011; Christ, Masli, Sharp, & Wood, 2015; Ege, 2015; Abbott, Daugherty, Parker, & Peters, 2016; Bills, Huang, Lin, & Wood, 2020; Ege, Seidel, Sterin, & Wood, 2021) improving internal controls (Lin, Pizzini, Vargus, & Bardhan, 2011), using new technologies to increase efficiency and effectiveness (Eulerich, Pawlowski, Waddoups, & Wood, 2021) and

lowering external audit fees and increasing external audit timeliness (Felix, Gramling, & Maletta, 2001; Prawitt et al., 2011; Abbott, Parker, & Peters, 2012a, 2012b). Second, in contrast, another stream of research shows that accounting and non-accounting business professionals have negative perceptions of internal auditing even though it adds value to organizations (Burton, Starliper, Summers, & Wood, 2015; Bartlett, Kremin, Saunders, & Wood, 2016, 2017) or that the role in the organization is not always clearly defined (Christ, Eulerich, Krane, & Wood, 2021). Third, descriptive surveys show that only 44 percent of stakeholders report internal auditing as adding “significant value”, and of those who report receiving value, half expect more value than they are currently receiving (PwC, 2017)<sup>1</sup>.

These three sets of research findings are puzzling in that even though internal auditing appears to be adding value to organizations in numerous ways, significant negative views of the profession persist, and stakeholders have reservations about the value of internal auditing. Given that these negative views exist, we study how negative stigma about the internal auditing profession impacts key internal auditing outcomes; including the ability of the internal audit function (IAF) to add value, internal audit’s influence in the organization, auditees’ willingness to implement IAF suggestions, and management’s exertion of pressure to change internal audit findings.

This question is important for several reasons. First, internal auditing is unique in its ability to provide daily, consistent monitoring, thereby serving an important governance function (D’Onza & Sarens, 2018). If stigma negatively impacts internal audit outcomes, the entire governance structure of organizations likely suffers. Second, internal auditors compete to obtain resources and often do not have the financial support they feel they need (Barua, Rama, & Sharma 2010; Chambers, 2014; Eulerich, Kremin, & Wood, 2019). Negative stigma about internal auditing may influence resource allocation decisions, further compromising the ability of the IAF to add value (Lenz & Sarens, 2012; Roussy & Brivot, 2016; Eulerich & Eulerich, 2020). Third, the internal audit profession has expended significant efforts to improve perceptions of internal auditing (Deloitte, 2016, 2018; Jacka, 2019; Pelletier, 2019; Ybarra, 2019). However, if negative stigmas about internal auditing do not negatively impact internal audit outcomes, those efforts would be better directed to focus on other issues.

We draw on literature about occupational stigma and psychology literature on anchoring and adjustment to motivate our study. We hypothesize that a negative stigma about the internal auditing profession creates a negative anchor in stakeholders’ minds. Prior research shows that people rarely fully adjust from an anchor (Schkade & Johnson, 1989; Gilovich, Griffin, & Kahneman, 2002), consequently,

stakeholders using reports or other materials produced by the IAF are likely to view the work more negatively because of the negative stigma anchor. This would lead to erroneous perceptions of poor performance by internal auditing.

We use two surveys and an experiment to investigate this issue. We survey a sample of internal auditors from the United States and a sample of chief audit executives (CAEs) from three European countries. The results across both surveys show that those practitioners who perceive a negative stigma regarding the internal audit profession are more likely to indicate that 1) the IAF is not perceived as either influential or adding value to their organization, 2) IAF suggestions are less likely to be implemented by auditees, and 3) internal auditors feel more pressure to change or suppress their findings.

We build upon these survey results to more directly test if stigma is causing our results by conducting an experiment. For the experiment, we hold constant the quality of the description of the IAF and induce negative stigma of internal auditing to investigate how the stigma impacts participants’ propensity to implement IAF recommendations. We document that participants exposed to a stigma about the internal audit profession were significantly less likely to 1) be influenced by internal audit results in making a business decision, 2) rely on internal audit suggestions, and 3) implement IAF suggestions. Participants also perceived internal auditing to be less influential overall.

The combination of survey and experimental results are consistent and provide triangulated evidence that negative stigma about internal auditing impairs internal auditors’ ability to add value. These findings have important practical implications for the internal audit profession and corporate governance stakeholders. Occupational stigma threatens the ability of the IAF to fulfill its mission. We suggest that the internal auditing profession examine both how to reduce negative perceptions held by stakeholders and how to help practitioners accurately evaluate how they are perceived so they may respond appropriately.

We also offer a valuable theoretical contribution to the occupational stigma literature. While there is a rich body of literature examining occupational stigma, the overwhelming majority of studies investigate professions traditionally seen as “dirty” (e.g., physically dirty professions like trash collection or morally dirty professions like prostitution). Very few studies consider the impact of stigma in traditionally “non-dirty” professions (Fraher, 2017). Our experimental results demonstrate that stigma in “non-dirty” professions is relatively easy to induce. We also extend occupational stigma research by studying stigmatized work outcomes, rather than focusing on documenting the existence of stigma and coping mechanisms employed by stigmatized individuals, as most prior studies have done<sup>2</sup>. The outcomes we identify suggest ramifications that extend beyond individuals to organizations and the various

<sup>1</sup> Stakeholder dissatisfaction with the value provided by IAFs appears as a theme in practitioner studies published in recent years. The percentage of stakeholders who reported receiving significant value from the IAF during 2014 through 2016 ranged between 48 percent and 54 percent (PwC, 2016), and other studies identify a “value gap” between stakeholders’ priorities and IAF areas of emphasis (PwC, 2016, 2017). Academic studies have similarly documented stakeholder discontent (Lenz & Sarens, 2012; Lenz & Hahn, 2015). Furthermore, different papers also discuss the variation of self-images of internal auditors as a key component of the added-value discussion (Roussy, 2013, 2015; Sarens, Lenz, & Decaux, 2016).

<sup>2</sup> Lai, Chan, and Lam (2013) note that “occupational-specific qualitative studies dominate the empirical research on [occupational stigma]” and “there are few quantitative studies concerning [occupational stigma] (Dick, 2005; Grandy, 2008)”.

stakeholders of those organizations. As such, the findings of this study should be of interest to academic researchers exploring internal auditing and corporate governance as well as those interested in organizational behavior and occupational stigma.

The remainder of this paper is structured as follows. The literature review in Section 2 builds to our hypotheses. The methodology of the surveys and the experiment are discussed in Section 3. We next present and discuss results for all three analyses in Section 4, followed by our conclusion in Section 5.

## 2. LITERATURE REVIEW

Researchers have proposed that members of a profession are incentivized to seek out professions and positions that carry the most prestige and, once in a position, delegate “dirty work” to others to enhance the profession’s image. The term “dirty work”, first coined by Hughes (1951), refers to tasks and occupations that are likely to be perceived as disgusting or degrading and are subsequently stigmatized by society (Ashforth & Kreiner, 1999). As explained by Ashforth and Kreiner (1999):

People who must deal with...dirty work tend to become “stigmatized” — that is, society projects the negative qualities associated with dirt onto them so that they are seen as dirty workers....Attributing dirtiness to others effectively devalues them and enables one to ignore a necessary and otherwise unavoidable aspect of one’s role set (Ashforth & Humphrey 1995). We emphasize that dirty work frequently is not viewed by societies as unimportant or trivial....People may applaud certain dirty work as noble (e.g., counseling the terminally ill), they generally remain psychologically and behaviorally distanced from that work and those who do it, glad that it is someone else. In short, the taint affects people’s relationship with the dirty workers, even while they may applaud the workers (p. 416).

Early studies examining occupational stigma focused on jobs traditionally viewed as physically or morally “dirty”<sup>3</sup>. However, over time the view of dirty work has expanded, and scholars acknowledge that virtually all occupations involve some form of dirty work, suggesting that even occupations regarded as respectable — such as accounting and auditing — likely involve some stigmatized elements or tasks (Kreiner, Ashforth, & Sluss, 2006).

In examining the underlying cause of occupational stigma, scholars have identified four unique sources: physical, moral, social, and emotional taint. Physical taint is associated with

tasks that are perceived to be physically disgusting or degrading or that deal with tangibly offensive things, such as trash collection. Moral taint has traditionally been associated with perceptions of sin, deception, or questionable virtue, such as is common with the casino-gaming or pornography industries (Hughes, 1958; Ashforth & Kreiner, 1999; Kreiner et al., 2006). The concept of social taint is arguably more ambiguous, as the value of one’s labor is judged by what is perceived as honorable, respectable, and prestige-giving against labor deemed less so (Hughes, 1958). Ashforth and Kreiner (2014) suggest that social taint is dependent upon occupation and context. More recently, emotional taint, characterized by emotions (or lack of emotion) displayed while performing as a task that is viewed as inappropriate, has been identified as an additional source of occupational taint (Rivera, 2015).

Prior research gives reasons to believe that internal auditing may suffer from stigma due to either social or moral taint. For example, Grandy and Mavin (2018) contend that moral taint is likely broader than initially conceptualized, as work that is perceived as morally stigmatized is sometimes viewed in both positive and negative terms, and is therefore performed by individuals who are simultaneously considered both saints and sinners (e.g., police officers). This results in a continuum of morally tainted workers, including the most obvious “sinners” (e.g., casino workers), the sometimes sinners (e.g., truckers and private detectives), and the new and surprising sinners, such as investment bankers, who generally enjoy high occupational prestige but nonetheless came to be viewed as morally repugnant following the 2008 financial crisis (Grandy & Mavin, 2018). Similar to investment banking, accounting and auditing is generally regarded as respectable. However, internal auditors have historically been likened to “corporate police” whose purpose is to root out control failures and bad accounting practices, rather than trusted business advisors whose purpose is to add value (Chambers, 2019). Close comparisons to a profession that has been recognized as morally tainted (i.e., police officers) suggest that that internal auditing may carry a similar stigma.

In addition, studies show that accounting students and external auditors hold negative views of internal auditing (Burton et al., 2015; Bartlett et al., 2016). Specifically, although external auditors believe that internal auditors perform interesting work and are highly respected by other business professionals, they also believe that internal auditors perform less meaningful work than external auditors (Bartlett et al., 2016). Accounting students have negative perceptions of internal auditing only once they have gained some work experience (Burton et al., 2015), lending credibility to the idea that social taint is causing a negative stigma. Although non-accounting business professionals have a relatively more favorable view of internal auditors, they still believe that other business professionals have a negative view of the profession (Bartlett et al., 2017). Taken together, these findings suggest that internal audit tasks are perceived as uninteresting and not meaningful, and those attributes are subsequently projected onto internal auditors and the profession as a whole. Therefore,

<sup>3</sup> Scholars categorize stigma in the organizational environment at three different levels: individual (micro level), occupational (meso level), and organizational (macro level) (Thomson & Grandy, 2018, p. 3). While the research across levels is rooted in stigma theory, there are important differences between each level such that individual, occupational, and organizational stigmas are three distinct constructs. For example, individual stigma is generally considered to have three sources: body (e.g., physical deformities, illness), tribe (e.g., race, religion), and blemishes of character (e.g., dishonesty), while organizational stigma has two: tribal (e.g., presence in product or geographical markets) and conduct (based on organizational actions) (Thomson & Grandy, 2018, p. 209). These are both distinct from the focus of this study, occupational stigma, the underlying source of which is work perceived to be either physically, morally, socially, or emotionally tainted (Ashforth & Kreiner, 1999; Kreiner et al., 2006). While there may be similarities between these three levels of stigma, differences between the complexity of factors, sources, and systems that contribute to stigma at each level result in different outcomes, and different strategies that individuals and organizations employ to counteract or manage the stigma (Thomson & Grandy, 2018, p. 231).

internal auditing is perceived by those outside the profession as less prestigious or respected than other accounting-related or business occupations; in other words, the profession suffers from stigma originating from social taint<sup>4</sup>.

Even though the occupational stigma literature does not currently provide much insight into the relationship between stigma and work outcomes, research in psychology suggests that stigma may negatively impact work outcomes. Stigmas play a powerful role in decision-making. Goffman (1963) notes that stigmas represent a relationship between a stereotype and an attitude, and we lean on these attitudes as we behave — that is, a stigma forms an anchor for initial assessments from which decision-makers adjust based on other decision-making factors (p. 4).

If stigma operates as an anchor, stakeholders using internal audit work products may be highly impacted. A host of prior research, beginning with Tversky and Kahneman (1974), shows that insufficient adjustment from anchors leads to predictable errors in judgment (Joyce & Biddle, 1981; Wright & Anderson, 1989; Epley & Gilovich, 2006; Goldberg, van der Linden, Ballew, Rosenthal, & Leiserowitz, 2019)<sup>5</sup>. In the case of stigma, the initial anchor information that a stakeholder uses for forming their judgment will be negative. When the stakeholder then decides to use the work of internal auditing for decision making, this negative anchor will cause the stakeholder to have an overall negative view of the work, even if they try to adjust based on the quality of the work outcome (Sarens & De Beelde, 2006; Sarens, De Beelde, & Everaert, 2009). Thus, we theorize that stakeholders (i.e., executive management, audit committee members, auditees, and other users of internal audit work) who hold a stigma about internal auditing or individual practitioners, or who perceive others to hold stigma about internal auditing are likely to discount the work of the IAF regardless of the actual quality of the IAF's work.

To create formal hypotheses, we identify four meaningful internal audit work outcomes. We selected these four outcomes specifically to capture the breadth of work done by internal auditors. We examine the perceived value internal auditing adds to the organization, the influence the IAF has in an organization, how much stakeholders rely on suggestions and work performed by the IAF, and whether the IAF is pressured to suppress or change their findings. We chose these specific outcomes for several reasons. As outlined in the definition of internal auditing, “internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations” (The Institute of Internal Auditors [IIA], 2017, p. 11). It is difficult to imagine that internal auditing adds value if the IAF

is not considered influential or if auditees are unwilling to rely on work performed or implement IAF recommendations. Furthermore, research conducted by the IIA Research Foundation documents that internal auditors are often pressured to change or suppress their findings (Rittenberg, 2016). Pressure to suppress or change findings suggests internal audit work is of little value and may not be perceived as providing objective evidence based on rigorous work. Based on our four outcomes of interest, we formally hypothesize the following:

*H1: Stigma of internal auditing negatively influences the perceptions of internal auditing adding value to the organization.*

*H2: Stigma of internal auditing negatively influences the perceptions of internal auditing being influential in an organization.*

*H3: Stigma of internal auditing positively influences internal auditors being pressured to change or suppress their findings.*

*H4: Stigma of internal auditing negatively influences stakeholders implementing internal auditing's recommendations.*

### 3. METHODOLOGY

We use two methodologies to test our hypotheses. Specifically, we use a survey conducted in 2017 and 2018 to collect perceptions of internal audit stigma and perceptions of positive work outcomes. We collect two diverse, independent samples of survey participants, one focusing on CAEs and one focusing on internal audit staff, to provide more robust evidence about our hypotheses. We also conduct an experiment to provide causal evidence about how stigma impacts stakeholders' perceptions of positive work outcomes. We discuss the methodology for the surveys and then the experiment.

#### 3.1. Surveys

We conduct a survey of United States internal auditors (with internal auditors from the public sector) and German, Swiss, and Austrian (henceforth “GSA”) CAE internal auditors (with internal auditors from the private sector). We used professionals on two different continents and across different sectors and hierarchy levels because, practically speaking, it is challenging to recruit internal audit participants and, theoretically speaking, we can test whether our results generalize to multiple internal audit groups and the perception of different hierarchy levels in the IAF<sup>6</sup>. We note that Germany, Austria, and Switzerland are similar to the United States in terms of being first-world developed countries with advanced economies that have utilized internal auditing for a significant amount of time. Prior

<sup>4</sup> Although research on the effects of stigma outside of occupations traditionally considered to be “dirty” has been limited (Fraher, 2017), one study in accounting provides evidence consistent with this view. Morales and Lambert (2013) document that management accountants, who play an important role in advising management and participating in operational decisions, are nonetheless tasked with a variety of “demeaning” responsibilities that they seek to reduce or delegate elsewhere, because the nature of these tasks conflicts with the constructed self-identity of a respected advisor.

<sup>5</sup> Although much of the anchoring and adjustment literature focuses on numeric anchors, these theories have been successfully applied to non-numeric anchors (e.g., see Parsons and Saunders, 2004; Allen and Parsons, 2010).

<sup>6</sup> We recognize that there may be differing levels of stigma attached to internal auditors in the public and private sectors. For example, given the requirement for companies listed on the NYSE to maintain an IAF, there is some evidence that the private sector recognizes that internal audit has the potential to add value. Conversely, public sector IAFs have been known to be eliminated in conjunction with funding cuts, and practitioners in the public sector can face politically-motivated intimidation or retaliation for reporting findings (Jackson, 2017). However, the high concentration of internal auditors in the public sector in the U.S. sample is complemented by the diverse sample of GSA internal auditors. Additionally, retaliation and intimidation experienced by public sector practitioners suggests that stigma awareness may be relatively higher among the U.S. sample, but our results do not suggest widespread stigma awareness among these participants.

internal audit research has shown similar results when comparing European internal auditors and U.S. internal auditors (Messier, Reynolds, Simon, & Wood, 2011; Carcello et al., 2020).

Because of constraints in sampling internal auditors in different countries, the models and instruments we used for testing differ slightly. Below we discuss the different samples and models for the U.S. and GSA participants. We discuss all instrument items pertaining to the United States and then instrument items pertaining to GSA.

### 3.1.1. U.S. survey sample description

We had the full latitude to design a survey for a group of internal auditors belonging to a statewide auditors' association in return for presenting at one of their meetings about academic research related to internal auditing (the presentation came after the data collection). The association consists of governmental internal auditors, accountants, and financial managers. As such, we asked only internal auditors to reply to the survey.

In total, we received 124 usable responses from the association's internal audit members. Table 1 (see Appendix) contains descriptive statistics of the participants. The participants had an average of 8.3 years of internal audit experience, and 39 percent of participants had attained the rank of manager or higher. Ninety-three (93) percent of participants were from the public sector.

### 3.1.2. U.S. survey model

The key variable we investigated for our hypotheses relates to the degree to which the participating internal auditors perceive their profession to be stigmatized. Specifically, we asked participants, "Please indicate your agreement with the following: The profession of internal auditing suffers from professional taint — meaning others have a negative or bad view of the profession of internal auditing". This question was measured on a 7-point agree/disagree scale and scored such that higher scores mean a greater agreement that the participant is aware of a stigma.

To test our hypotheses, we measured the degree to which internal auditors perceived that they added value (*AddsValue*, tests *H1*), how influential they are in their organization (*VeryInfluential*, tests *H2*) if auditors were pressured to change their findings (*PressuredFindings*, tests *H3*), and whether auditees relied on and implemented their suggestions (*ImplementedSuggestions*, tests *H4*). These variables are defined as follows:

- *AddsValue*: The average of four questions that ask agreement on a 7-point agree/disagree scale and scored so higher scores mean greater agreement with the questions, "I believe the internal audit function adds value to my organization", "Management believes the internal audit function adds value to my organization", "The board of directors (or its equivalent) believes the internal audit function adds value to my organization", and "Other stakeholders believe the internal audit function adds value to my organization".

- *VeryInfluential*: The answer to the question, "Please indicate your agreement with the following: The internal audit function at my organization is very influential". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

- *ImplementedSuggestions*: The answer to the question, "Please indicate your agreement with the following: Auditees at my organization are likely to implement suggestions made by the internal audit function". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

- *PressuredFindings*: The answer to the question, "Please indicate your agreement with the following: I have been pressured to suppress or change findings". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

In testing our hypotheses, we deemed it important to control for other possible explanatory factors. Thus, we use the following model to control for other factors that may explain our results:

$$\begin{aligned} \text{Work outcome} = & \beta_1 + \beta_2 \text{Stigma} + \beta_3 \text{IAFSize} + \\ & + \beta_4 \text{ScopeOfIAF} + \beta_5 \text{TimeConsulting} + \beta_6 \text{CAE} + \\ & + \beta_7 \text{YearsPosition} + \beta_8 \text{YearsIA} + \beta_9 \text{CIA} + \\ & + \beta_{10} \text{Identification} + \beta_{11} \text{Age} + \beta_{12} \text{Male} + \varepsilon \end{aligned} \quad (1)$$

Our hypotheses predict that the coefficient on  $\beta_2$  will be negative and statistically significant for *H1*, *H2*, and *H4* and positive and statistically significant for *H3*. Our choice of control variables was driven by a desire to control for other internal audit characteristics that might explain internal auditors' perception of their professions, such as the organization's size, the work the internal auditors perform, or the competence and other demographics of the internal auditor participants. The variables used to control for size, scope, and competence are similar to what prior research has used to control for the overall quality of the IAF (Prawitt et al., 2009; Prawitt et al., 2011). We also include a control variable for the degree to which each respondent identifies with the profession — thinking that the more they identify with the profession, the more value they will believe the profession adds. These variables are defined as follows:

- *IAFSize*: The number of full-time equivalent internal auditors employed in the IAF.

- *ScopeOfIAF*: The geographic scope of the IAF ranges from 1) local, 2) regional, 3) national, 4) international, or 5) other.

- *TimeConsulting*: The percentage of time the IAF spent providing consulting tasks in the prior year.

- *CAE*: A dummy variable equal to 1 if the respondent is the CAE and 0 otherwise.

- *YearsPosition*: The number of years the respondent has worked in his or her current position.

- *YearsIA*: The number of years the respondent spent working in internal auditing.

- *CIA*: A dummy variable equal to 1 if the respondent has a CIA certification and 0 otherwise.

- *Identification*: A measure of the identification of the respondent with internal auditing based on Mael and Ashforth (1992) and similar to Bamber and

<sup>7</sup> We note that if we conduct a factor analysis on these variables, they all load on a single factor and the results are the same if we use the derived factor in our analysis instead of the averaging.

Iyer's (2007) Organizational Identification Scale. Average of six questions measured on a 7-point agree/disagree scale. Higher values indicate greater identification. Questions are as follows: "When someone criticizes internal audit, it feels like a personal insult", "I am very interested in what others think about internal audit", "When I talk about internal audit, I usually say 'we' rather than 'they'", "Internal audit's successes are my successes", "When someone praises internal audit, it feels like a personal compliment", and "When stories in the media criticize internal audit, I feel embarrassed".

- *Age*: The age of the respondent.
- *Male*: A dummy variable equal to 1 if the respondent is male and 0 if female.

### 3.1.3. GSA survey sample description

For the GSA sample of internal audit participants, we coordinated with the IIAs in Germany, Switzerland, and Austria to survey chief audit executives (CAEs). These IIAs regularly survey CAEs from different organizations (the survey is used for benchmarking and identifying important emerging trends in the profession). We were able to add several questions to that survey. The national IIA institutes in the three countries conducted an intensive pretest of the instrument with a sample of CAEs. Based on their feedback and the authors' experience with prior studies for the three countries, we aligned the survey and all questions to be understandable to the practitioners<sup>8</sup>. The online survey was accessible to CAEs for one month. The national IIAs sent the survey to 1,916 participants. A total of 113 respondents provided usable responses, but in 8 cases data was not complete (there does not appear to be any patterns to the nonresponses)<sup>9</sup>.

We present demographic statistics for the GSA sample in Table 2a and Table 2b (see Appendix). The GSA sample is much more diverse than the U.S. sample because participants came from many different industries (e.g., the largest industry concentration is the financial sector, representing 23.74 percent of respondents) and companies of various sizes. This sample serves as a useful complement to the U.S. sample, which was more homogenous.

### 3.1.4. GSA survey model

Because our GSA survey was part of a larger data collection event by the IIA, and the organizers wanted to economize the participants' time, we used a slightly different instrument in the GSA sample<sup>10</sup>. Specifically, we asked four questions with 5-point

agreement scales<sup>11</sup>: "Other people have negative stereotypes of the internal audit function", "Internal auditors are esteemed colleagues", "Internal auditors perform important and satisfying work", and "Internal auditors have excellent career opportunities". Responses were averaged and coded so that higher scores mean greater stigma (including reverse coding, where appropriate). We label the resulting variable as *GStigma*.

Also, because the participating IIAs wanted to reduce participants' time commitment, we agreed only to test two of our hypotheses: *H1* and *H4*. To test *H1* we measured the degree to which internal audit adds value (*GAddsValue*). To test *H4* we measured whether boards of directors, executive management, external auditors, and line management use internal auditor recommendations (*GUseRecommendations*). These variables are defined formally as follows:

- *GAddsValue*: The answer to one question measured on a 5-point scale, with greater scores indicating more agreement. The question was, "The internal audit function adds value".

- *GUseRecommendations*: The average answer to four questions. The questions are measured on a 5-point scale, with greater values indicating they use the suggestions more. The questions asked how much the board of directors, executive management, external auditors, and line management use internal auditor recommendations.

The GSA analysis also used slightly different control variables. Specifically, we tested the following model<sup>12</sup>:

$$\begin{aligned} \text{Work outcome} = & \beta_1 + \beta_2 \text{GSAStigma} + \\ & + \beta_3 \text{Employees} + \beta_4 \text{InternalAuditors} + \beta_5 \text{PCIA} + \\ & + \beta_6 \text{Consulting} + \beta_7 \text{ForeignActivities} + \\ & + \beta_8 \text{Outsourced} + \varepsilon \end{aligned} \quad (2)$$

Like the previous model, the variables were selected to control company and internal audit attributes that may correlate with perceptions of stigma and work outcomes. The variables are defined formally as follows:

- *Employees*: The total number of employees at the company.
- *InternalAuditors*: The number of internal auditors at the company.
- *PCIA*: The percentage of internal auditors who have a CIA certification.
- *Consulting*: The percentage of the IAF's time spent providing consulting services.
- *ForeignActivities*: The percentage of the company's revenue generated in foreign countries.
- *Outsourced*: The number of full-time-equivalent internal auditors sourced from a third party.

<sup>8</sup> We note that the survey was conducted in German. This language was deemed appropriate for respondents, and none noted language problems when responding to the survey.

<sup>9</sup> A total of 105–113 usable responses were received and analyzed. If questions were not answered for all models, we included all responses possible to estimate each model.

<sup>10</sup> We recognize the challenge of collecting data from experienced participants. As all of our results are robust to the inclusion or exclusion of various control variables in the United States and GSA, we do not believe the slightly different instruments influence the validity of our results. While we may have been able to push harder to have similar instruments, we believe it was more important to maintain positive relations between standard setters and the academy as our results are not likely to be explained by the slight differences between models.

<sup>11</sup> Since the GSA IIA survey used 5-point scales for other questions in that survey, we used 5-point scales for the questions we added rather than the 7-point scales we used in the United States.

<sup>12</sup> We note that in the GSA sample we also asked participants if they used the IAF as a management training ground, given the prior research in this area (Messier et al., 2011; Christ et al., 2015). We did not find any significant relations with the dependent variables we studied, and only one small significant correlation with our control variables (*ForeignActivities*). Thus, we do not include it in our analyses.

### 3.2. Experiment

To provide causal evidence that stigma drives our results, we conducted an experiment wherein we induce stigma towards internal audit and evaluate if that stigma causes negative work outcomes. We note that our experimental studies one of the two potential paths that stigma may impact work outcomes, namely how stakeholders are affected by stigma. We did not study whether and how stigma might impact internal auditor judgments and the quality of work performed, which is an interesting question for future research.

#### 3.2.1. Experimental participants

Prior research shows that individuals with even a small amount of accounting or business experience have formed strong opinions about internal auditing (Burton et al., 2015; Bartlett et al., 2016, 2017). Thus, to effectively manipulate stigma, we sought a participant group unlikely to have already formed strong opinions about internal audit so that we could induce both positive views and stigma about internal auditing. Similar to prior studies, we sampled students at a large U.S. university who did not yet have business experience<sup>13</sup>.

We offered extra credit to business school students for participating in our study. We sent the participants an email to complete the study within one week. In total, after removing participants who were inattentive or failed manipulation check questions, we analyzed 65 responses.

#### 3.2.2. Experimental task

We used a 2 x 1 between-participants design with an additional nested factor. Participants completed a short case with two parts. In the first part of the case, participants read a hypothetical preliminary press release from U.S. News and World Report and were asked to provide their opinion of the press release. The press release communicated the results of surveying “a wide range of experienced business professionals about their thoughts on reputable and growing professions as well as stale and declining professions”. The press release described three professions that “professionals generally perceive...as reputable, prestigious, and honorable, and tend to believe other professionals have similarly high opinions”. It also described three professions that “professionals generally perceive...as drab, pedestrian, and uninspiring, and tend to believe other professionals hold these professions in similarly low esteem. That is, there is a negative stigma about these professions”<sup>14</sup>. All participants saw the same six professions; we manipulated whether internal auditing was identified as a reputable and growing profession or

a stale and declining profession. To provide meaning to this task, we asked how four different factors would increase (decrease) participants’ perceptions of these professions and to rate each of the six professions listed.

In the second part of the study, all participants read a case study developed by Kadous, Koonce, and Towry (2005) and adapted to the internal audit setting by Burton, Emett, Simon, and Wood (2012). In the case study, participants assume the role of a manager deciding whether to continue with a planned “turnaround” or delay the “turnaround” (the turnaround was a planned whole-plant shutdown to perform inspection, maintenance, etc.). The case then explained that the plant normally performed the turnaround every two years but was considering changing it to three years. This would reduce downtime but may cause greater unnecessary stops over time because of unexpected manufacturing problems. After reviewing this basic information, participants made a preliminary choice to implement or delay the shutdown and report confidence in their decision.

Once participants provided their initial decision and confidence, we presented information from an internal auditor about the shutdown’s possible positive and negative effects. To measure whether the information from the internal auditor was deemed sufficient to change the participant’s position, the recommendation of the internal auditor was the opposite of the participant’s initial decision (e.g., if the participant’s preliminary decision was to delay the turnaround, the internal auditor’s recommendation was to implement the turnaround). Providing the opposite recommendation is the nested factor, and thus we use the initial assessment as a nested factor in the analysis<sup>15</sup>. After reviewing the internal auditor’s report, participants provided their final decision about postponing the turnaround. The participants then answered additional questions.

#### 3.2.3. Experiment independent and dependent variables

The independent variable is whether the internal audit was positively or negatively described in the first part of the study. We measured four dependent variables that directly test our four hypotheses and two additional dependent variables that allow for testing the same idea that stigma negatively influences positive work outcomes in our experimental setting. Specifically, concerning the two “extra” dependent variables, we measured whether participants changed their initial opinion and their confidence in their choice by taking the difference between their initial question responses and their final question responses. We created two variables *ChangeDecision* and *ChangeConfidence*. *ChangeDecision* is a dummy variable that takes the value of one if the participant changed their position and zero if they did not. *ChangeConfidence* measures how much participants’ confidence scores changed, with higher values indicating increased confidence after reviewing

<sup>13</sup> We obtained Institutional Review Board approval for this study.

<sup>14</sup> Our manipulation was designed to align with the construct of social taint, specifically one set of professions was described as being perceived as honorable, respectable, and prestige-giving (Hughes, 1958), while the other was significantly less so. In other words, we arranged an environment wherein certain professions were placed in a demeaning position in comparison to others, which scholars suggest should produce social taint (Ashforth & Kreiner, 2014). Though we acknowledge that internal auditing could also be morally tainted, we chose to induce only one source of occupational taint, which potentially weakens our manipulation, and would bias against finding results.

<sup>15</sup> For the variable *ChangeDecision*, the nested factor was the decision to implement or not to implement the turnaround. This was also used as the nested factor for all other variables except *ChangeConfidence*. For *ChangeConfidence*, the nested factor was the initial confidence assessment.

the internal auditor's report (the variable is the difference between two questions measured on 11-point scales).

As dependent variables that directly test our hypotheses, we measured participants' assessment of the value the internal audit report added to their decision (*IAAddsValue*, testing *H1*), how influential the internal auditor's recommendation was to their decision (*IAInfluential*, testing *H2*), how likely they were to implement the internal auditor's recommendations (*ImplementIASuggestions*, testing *H3*), and how much participants stated they relied on the internal auditor's report (*RelyOnInternalAudit*, testing *H4*). The first three variables were measured on a 7-point agree/disagree scale with lower values indicating stronger agreement. The *RelyOnInternalAudit* variable was measured on an 11-point scale with higher numbers indicating more reliance).

## 4. RESULTS AND DISCUSSION

### 4.1. U.S. survey results

Table 3 (see Appendix) contains descriptive statistics for the U.S. analysis. The results show that, on average, U.S. respondents neither agree nor disagree that there is a stigma attached to the internal audit profession. They responded with a value of 4.17 on a 7-point scale, which does not statistically differ from the midpoint of the scale (p-value > 0.10). Thus, it appears that U.S. internal auditors, on average, do not believe others have a stigma about internal auditing, but also do not believe that others hold positive views about the profession<sup>16</sup>. Table 3 also shows that overall, internal auditors believe that they add value, are influential, are not highly pressured to change findings, and auditees implement their suggestions<sup>17</sup>.

Table 4 (see Appendix) provides testing of *H1-H4*. The results support all four hypotheses. Specifically, the results show that the more participants perceive internal auditing to be stigmatized, the less value they believe internal auditing adds (-0.17\*\*\*, support for *H1*), the less influential internal auditing is in performing its work (-0.29\*\*\*, support for *H2*), the more pressured internal auditors feel to change their findings (0.57\*\*\*, support for *H3*), and the less likely auditees are to implement internal auditing suggestions (-0.16\*\*, support for *H4*) (all p-values < 0.05). These results support our prediction that perceived stigma is associated with negative work outcomes.

### 4.2. GSA survey results

Table 5 (see Appendix) contains descriptive statistics for the GSA participant responses. The descriptive statistics show that, on average, respondents

significantly disagree that there is a stigma attached to the internal auditing profession. The *GStigma* scores a value of 2.56 on a 5-point scale — meaning it is significantly below the midpoint of the scale (p-value < 0.01). Thus, our GSA internal auditor participants perceive that others have a more positive view of their profession than our sample of U.S. internal auditors. Table 5 also shows averages for the *GAddsValue* and *GUseRecommendations*, used to test *H1* and *H4*, respectively. While results suggest that GSA respondents believe that internal audit adds value, interestingly, participants also report that auditees are not highly likely to use their recommendations (p-values < 0.01).

Table 6 (see Appendix) shows formal statistical tests of *H1* and *H4*. We find support for both hypotheses; specifically, we find that when there is a perceived stigma attached to the IAF, stigma is negatively associated with adding value (support for *H1*) and auditees' use of internal audit recommendations (support for *H4*) (p-values < 0.01). These results support two of our hypotheses that stigma of internal auditing is associated with negative work outcomes.

The results for both surveys provide correlational evidence that stigma is negatively associated with positive work outcomes, even when controlling for various other factors such as internal audit quality, sourcing arrangements, and identification with the profession of internal auditing.

### 4.3. Experimental results

The results of the experiment are presented in Table 7 (see Appendix). We provide statistical tests using chi-square and t-tests or a nested ANOVA test in SAS (McDonald, 2014). As the results are qualitatively similar for both types of analyses, we only discuss the chi-square and t-test results (but provide the f-scores and p-values from the nested ANOVA test in Table 7)<sup>18</sup>. We first analyze the two questions about changing internal audit opinions and confidence in internal audit results. The results show that inducing an awareness of stigma attached to internal auditing caused participants to decrease their likelihood of changing their opinion from 71.4 percent to 43.3 percent (p-value = 0.011). The results show that while confidence decreased from 0.77 to 0.37, the result was not statistically significant at conventional levels (p-value = 0.214). Overall, these findings are consistent with the expectation that stigma causes negative work outcomes.

In relation to *H1*, *H2*, and *H4*, we find support for two of the hypotheses<sup>19</sup>. Consistent with *H2*, we find that inducing stigma decreased perceptions regarding internal audit influence in decision-making (p-value = 0.031). Consistent with *H4*, we find that inducing stigma causes participants to be less likely to implement internal auditor recommendations (p-value = 0.029) and to be less willing to rely on internal audit (p-value = 0.026). The evidence for *H1* is not statistically significant at

<sup>16</sup> There are no significant correlations with stigma and whether the respondent is a CAE; how long the person has been in their current position; gender; and the size, scope, or time spent consulting of the IAF of the respondent. The more internal audit experience and the older the respondent is associated with a slightly lower perception of stigma.

<sup>17</sup> There are no significant correlations with any of these variables and whether the respondent is a CAE; how long the person has been in their current position; how many years of internal audit experience of the respondent, gender; age of respondent, and the size, scope, or time spent consulting of the IAF of the respondent. If the participant has a CIA, there is a modest positive correlation with perceptions of adding value and being influential.

<sup>18</sup> The results are also robust to instead of including a nested factor, just controlling for the original decision in the analysis. Also, if we include an interaction term of the original decision with the internal audit manipulation, the interaction term is not significant in any of the analyses.

<sup>19</sup> Note that the experiment was not designed to test *H3*.

conventional levels, suggesting we did not find evidence that inducing stigma decreased perceptions of the amount of value internal auditors add ( $p$ -value = 0.143).

Experimental results largely confirm our expectations based on the surveys. These results are important because they not only show an association between stigma and negative work outcomes, as hypothesized, but they show that the relationship is causal — inducing negative stigma about internal audit causes negative work outcomes for internal auditors.

## 5. CONCLUSION

Advocates for the internal audit profession emphasize the valuable role of an effective IAF in achieving corporate governance and business objectives. However, recent evidence from both academic and practitioner studies indicates that stakeholders and members of the business community are skeptical about whether IAFs provide an appropriate return on investment. Using surveys of internal audit practitioners of different hierarchy levels from both the U.S. and abroad and an experiment, this study builds upon research in occupational stigma to examine the negative perceptions attached to the internal audit profession and how these negative perceptions are related to internal audit outcomes. The results highlight a causal link between stigma and negative internal audit outcomes.

These results are important for several reasons. First, this study contributes to the academic literature on occupational stigma. We extend the prior literature by examining members of a “non-dirty” profession and provide insight into the relationship between stigma and work outcomes, both of which have received little attention in existing occupational stigma studies. Specifically, we extend the occupational stigma literature to demonstrate that occupational stigma causes negative work outcomes and not just threats to individual identity.

Second, this study furthers internal auditing research by demonstrating that negative perceptions about the profession have ramifications beyond employee human resource decisions. Interestingly, despite persistent stakeholder dissatisfaction and negative perceptions of the profession documented in practitioner studies and acknowledged and discussed by leaders of the profession (Deloitte, 2016; PwC, 2016; KPMG, 2017; Pelletier, 2019; Ybarra, 2019), our results suggest that awareness of these negative perceptions is not widespread among individual practitioners. This lack of awareness is

concerning because, although we cannot determine the extent of negative perceptions surrounding individual IAFs, practitioners cannot work to reverse such perceptions if they are unaware that either these perceptions exist or the negative effects of such perceptions. Indeed, our results show that stigma about internal auditing can influence internal auditors’ fundamental ability to fulfill their organizational mission. Given previous findings on the value of internal auditing in corporate governance, these findings should be useful to those interested in promoting high-quality corporate governance.

We acknowledge that there are several limitations to our study, some of which offer future research opportunities. Though the findings of this study suggest that awareness of stakeholder disappointment is not widespread among internal audit practitioners, we do not provide insights into the validity of stakeholder complaints. Future research can identify specific stakeholder concerns and examine effective methods for mitigating such concerns (e.g., stakeholder education and outreach). Further, given the attention this issue has received in the practitioner literature and from professional leaders, it is somewhat surprising that, on average, practitioners are not aware of negative perceptions surrounding the profession. Future research can investigate how the concerns of leaders in the profession can be effectively communicated to practitioners working within numerous individual organizations. Additionally, while our diverse and experienced sample is a benefit, we also recognize that practitioners’ self-perceptions may not accurately reflect stakeholder beliefs — although these should not call into question the tests related to our hypotheses. Specifically, one of our samples consists of mostly public sector professionals, which may have some compounding effect on the results given a negative stigma surrounding governmental work within the United States (Ovsey, 2014).

Given the critical nature of internal auditing to the overall health of corporate governance and the documented impact of occupational stigma, we encourage additional research examining these issues. Among other topics, future studies could investigate why stigma awareness is more pronounced in the United States than in other countries. Furthermore, we encourage additional research to address whether internal auditing benefits outweigh the costs (or vice versa). Results may clarify whether stakeholder skepticism of the value provided by internal auditing is warranted. This may further identify actions that internal audit practitioners, advocates, and professional leaders may take to change perceptions of the profession.

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## APPENDIX

Table 1. Demographics of U.S. participants

| <i>Variable</i>                                  | <i>Mean/Count</i> | <i>Std/%</i> |
|--|-------------------|--------------|
| Years of experience in internal auditing         | 8.3               | 10.3         |
| Years of experience in current position          | 6.6               | 6.3          |
| Male   | 63.7%             | 48.3%        |
| Number of full-time equivalent internal auditors | 7.6               | 13.0         |
| Time spent on consulting projects                | 20.3%             | 20.9%        |
| <i>Title</i>                                     |                   |              |
| Chief audit executive (CAE) or equivalent        | 15                | 12%          |
| Director or senior manager                       | 18                | 14%          |
| Manager  | 16                | 13%          |
| Audit staff                                      | 54                | 44%          |
| Other  | 21                | 17%          |
| <i>Education</i>                                 |                   |              |
| Associate's degree or less                       | 11                | 9%           |
| Bachelor's degree                                | 53                | 43%          |
| Master's degree or higher                        | 60                | 48%          |
| <i>Organization type</i>                         |                   |              |
| Publicly traded organization                     | 1                 | 1%           |
| Public sector                                    | 115               | 93%          |
| Other  | 8                 | 6%           |

Notes: A total of 124 usable responses were received and analyzed.

Table 2a. Demographics of GSA participants

| <i>Variable</i>   | <i>Mean/Count</i> | <i>Std/%</i> |
|---|-------------------|--------------|
| Number of full-time equivalent internal auditors  | 31.3              | 130.60       |
| Number of employees in the company  | 20,742            | 49,722       |
| % of revenue generated in foreign countries   | 26.61             | 32.63        |
| Number of full-time-equivalent internal auditors sourced from a third party (outsourcing) | 0.42              | 1.07         |
| % of time performing consulting activities  | 16.44             | 12.78        |
| % of internal auditors who have the CIA certification                                     | 17.83             | 25.82        |

Table 2b. Demographics of GSA participants

| <i>Industry</i>               | <i>Percentage</i> |
|-------------------------------|-------------------|
| Service industry              | 6.47              |
| Commercial sector             | 6.47              |
| Industrial sector             | 19.18             |
| Financial sector              | 23.74             |
| Media                         | 1.20              |
| Non-profit                    | 4.56              |
| Public/governmental companies | 18.47             |
| Pension funds                 | 0.24              |
| Other                         | 8.15              |
| Telecommunication             | 1.20              |
| Insurance industry            | 6.47              |
| Utility companies             | 3.84              |

Notes: A total of 105-113 usable responses were received and analyzed. If questions were not answered for all models, we included all responses possible to estimate each model.

Table 3. Descriptive statistics of U.S. internal auditors' perceptions

| <i>Variable</i>               | <i>Mean</i> | <i>Std. Dev.</i> | <i>T-stat. comparing against midpoint of scale</i> |
|-------------------------------|-------------|------------------|--|
| <i>Stigma</i>                 | 4.17        | 1.46             | 1.29   |
| <i>AddsValue</i>              | 5.73        | 0.96             | 20.11***   |
| <i>VeryInfluential</i>        | 5.00        | 1.43             | 7.78***  |
| <i>PressuredFindings</i>      | 2.98        | 1.85             | -6.15***   |
| <i>ImplementedSuggestions</i> | 5.51        | 1.21             | 13.84***   |

Notes: \*\*\*, \*\*, \* suggest p-values < 0.01, 0.05, and 0.10, respectively. P-values are one-tailed when a directional hypothesis and the results are consistent with the hypothesis. Variables are defined as follows:

*Stigma*: The answer to the question, "Please indicate your agreement with the following: The profession of internal auditing suffers from professional taint — meaning others have a negative or bad view of the profession of internal auditing". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

*AddsValue*: The average of four questions that ask agreement on a 7-point agree/disagree scale and are scored so higher scores mean a greater agreement to the questions, "I believe the internal audit function adds value to my organization", "Management believes the internal audit function adds value to my organization", "The board of directors (or its equivalent) believes the internal audit function adds value to my organization", and "Other stakeholders believe the internal audit function adds value to my organization".

*VeryInfluential*: The answer to the question, "Please indicate your agreement with the following: The internal audit function at my organization is very influential". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

*ImplementedSuggestions*: The answer to the question, "Please indicate your agreement with the following: Auditees at my organization are likely to implement suggestions made by the internal audit function". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

*PressuredFindings*: The answer to the question, "Please indicate your agreement with the following: I have been pressured to suppress or change findings". Measured on a 7-point agree/disagree scale and scored so higher scores mean greater agreement.

**Table 4.** The effects of internal auditors' perception of professional stigma on work outcomes in the United States

|                       | <i>AddsValue</i> | <i>VeryInfluential</i> | <i>PressuredFindings</i> | <i>ImplementedSuggestions</i> |
|-----------------------|------------------|------------------------|--------------------------|-------------------------------|
| Intercept             | 7.11 (0.61)***   | 7.85 (0.88)***         | -0.37 (1.20)             | 7.81 (0.80)***                |
| <i>Stigma</i>         | -0.17 (0.06)***  | -0.29 (0.08)***        | 0.57 (0.11)***           | -0.16 (0.08)**                |
| <i>IAFSize</i>        | 0.01 (0.01)**    | 0.02 (0.01)*           | -0.0003 (0.0132)         | 0.01 (0.01)                   |
| <i>ScopeOfIAF</i>     | -0.03 (0.10)     | -0.16 (0.14)           | 0.08 (0.20)              | -0.04 (0.13)                  |
| <i>TimeConsulting</i> | 0.002 (0.004)    | 0.01 (0.01)**          | -0.003 (0.008)           | 0.01 (0.01)**                 |
| <i>CAE</i>            | -0.06 (0.25)     | -0.34 (0.37)           | 0.29 (0.5)               | -0.28 (0.33)                  |
| <i>YearsPosition</i>  | -0.002 (0.015)   | 0.01 (0.02)            | -0.01 (0.03)             | 0.01 (0.02)                   |
| <i>YearsIA</i>        | 0.003 (0.01)     | 0.01 (0.01)            | 0.01 (0.02)              | -0.001 (0.013)                |
| <i>CIA</i>            | 0.47 (0.24)*     | 0.38 (0.34)            | -0.26 (0.47)             | 0.28 (0.31)                   |
| <i>Identification</i> | -0.24 (0.09)**   | -0.47 (0.13)***        | 0.05 (0.18)              | -0.39 (0.12)***               |
| <i>Age</i>            | 0.005 (0.008)    | 0.00008 (0.012)        | 0.005 (0.016)            | -0.01 (0.01)                  |
| <i>Male</i>           | -0.46 (0.17)***  | -0.58 (0.25)**         | 0.72 (0.34)**            | -0.54 (0.23)**                |
| N                     | 123              | 123                    | 123                      | 123                           |
| Adj. R <sup>2</sup>   | 0.150            | 0.208                  | 0.136                    | 0.100                         |

Notes: The first number in each cell shows the estimate, and the second number in parentheses shows the standard error.

\*\*\*, \*\*, \* suggest p-values < 0.01, 0.05, and 0.10, respectively. All variables are defined in Table 4 and as follows:

*IAFSize*: The number of full-time equivalent internal auditors employed in the IAF.

*ScopeOfIAF*: The geographic scope of the IAF ranges from 1) local, 2) regional, 3) national, 4) international, or 5) other.

*TimeConsulting*: The percentage of time the IAF spent providing consulting tasks in the prior year.

*CAE*: A dummy variable equal to 1 if the respondent is the CAE and 0 otherwise.

*YearsPosition*: The number of years the respondent had worked in his or her current position.

*YearsIA*: The number of years the respondent spent working in internal auditing.

*CIA*: A dummy variable equal to 1 if the respondent has a CIA certification and 0 otherwise.

*Identification*: A measure of the identification between the respondent and internal auditing based on Mael and Ashforth (1992) and similar to Bamber and Iyer's (2007) Organizational Identification Scale. Average of six questions measured on a 7-point agree/disagree scale. Higher values indicate greater identification. Questions are as follows: "When someone criticizes internal audit, it feels like a personal insult", "I am very interested in what others think about internal audit", "When I talk about internal audit, I usually say 'we' rather than 'they'", "Internal audit's successes are my successes", "When someone praises internal audit, it feels like a personal compliment", and "When stories in the media criticize internal audit, I feel embarrassed".

*Age*: The age of the respondent.

*Male*: A dummy variable equal to 1 if the respondent is male and 0 if female.

**Table 5.** Descriptive statistics of GSA internal auditors' perceptions

| Variable                   | Mean | Std. Dev. | T-stat. comparing against midpoint of scale |
|----------------------------|------|-----------|---|
| <i>GStigma</i>             | 2.56 | 0.61      | -7.49***                                    |
| <i>GAddsValue</i>          | 4.35 | 0.66      | 21.52***                                    |
| <i>GUseRecommendations</i> | 2.79 | 0.57      | -3.92***                                    |

Notes: \*\*\*, \*\*, \* suggest p-values < 0.01, 0.05, and 0.10, respectively. Variables are defined as follows:

*GStigma*: The average of four questions: "Other people have negative stereotypes of the internal audit function", "Internal auditors are esteemed colleagues", "Internal auditors perform important and satisfying work", and "Internal auditors have excellent career opportunities". Measured on a 5-point scale and coded so that higher scores mean greater stigma (including reverse coding, where appropriate).

*GAddsValue*: The answer to one question measured on a 5-point scale, with greater scores indicating more agreement. The question is, "The internal audit function adds value".

*GUseRecommendations*: The average answer to four questions. The questions are measured on a 5-point scale, with greater values indicating they use the suggestions more. The questions asked how much the board of directors, executive management, external auditors, and line management use internal auditor recommendations.

**Table 6.** The effects of internal auditors' perception of professional stigma on work outcomes in Germany, Switzerland, and Austria

|                          | <i>GAddsValue</i>     | <i>GUseRecommendations</i> |
|--------------------------|-----------------------|----------------------------|
| Intercept                | 5.017 (0.31)***       | 3.337 (0.27)***            |
| <i>GStigma</i>           | -0.271 (0.10)***      | -0.242 (0.09)***           |
| <i>Employees</i>         | 0.000003 (0.000001)** | 0.000003 (0.000001)**      |
| <i>InternalAuditors</i>  | 0.0003 (0.0005)       | 0.000169 (0.000404)        |
| <i>PCIA</i>              | -0.001 (0)            | 0.001 (0)                  |
| <i>Consulting</i>        | 0.003 (0.01)          | -0.002 (0)                 |
| <i>ForeignActivities</i> | -0.003 (0)            | -0.001 (0)                 |
| <i>Outsourced</i>        | 0.013 (0.06)          | 0.093 (0.05)*              |
| N                        | 109                   | 105                        |
| Adj. R <sup>2</sup>      | 0.061                 | 0.107                      |

Notes: The first number in each cell shows the estimate, and the second number in parentheses shows the standard error.

\*\*\*, \*\*, \* suggest p-values < 0.01, 0.05, and 0.10, respectively (p-values are one-tailed when there is a directional expectation and the results are in the expected direction). All variables are defined in Table 6 and as follows:

*Employees*: The total number of employees at the company.

*InternalAuditors*: The number of internal auditors at the company.

*PCIA*: The percentage of internal auditors who have a CIA certification.

*Consulting*: The percentage of the IAF's time spent providing consulting services.

*ForeignActivities*: The percentage of the company's revenue that is generated in foreign countries.

*Outsourced*: The number of full-time-equivalent internal auditors sourced from a third party (outsourcing).

Table 7. Experimental results

| Variable               | Internal audit manipulation |               | $\chi^2$ or T-stat. | p-value | Nested f-value | Nested p-value |
|------------------------|-----------------------------|---------------|---------------------|---------|----------------|----------------|
|                        | Positive                    | Negative      |                     |         |                |                |
| ChangeDecision         | 71.4% (45.8%)               | 43.3% (50.4%) | 5.25                | 0.011   | 5.71           | 0.010          |
| ChangeConfidence       | 0.77 (1.99)                 | 0.37 (2.09)   | -0.80               | 0.214   | 1.11           | 0.149          |
| IAAddsValue            | 1.97 (0.89)                 | 2.23 (1.07)   | 1.08                | 0.143   | 1.17           | 0.142          |
| IAInfluential          | 1.86 (0.88)                 | 2.45 (1.57)   | 1.90                | 0.031   | 3.86           | 0.027          |
| ImplementIASuggestions | 2.43 (1.09)                 | 3.07 (1.56)   | 1.93                | 0.029   | 4.10           | 0.024          |
| RelyOnInternalAudit    | 6.91 (1.74)                 | 5.93 (2.24)   | -1.98               | 0.026   | 3.86           | 0.027          |

Notes: P-values are one-tailed when a directional hypothesis is made, and the results are consistent with the hypothesis. The columns "Nested f-value" and "Nested p-value" report f-values and p-values, respectively, if we analyze the data using a nested model. The nested model includes each variable as the dependent variable and then as factors 1) the variable positive and 2) the initial choice the participant made before seeing the internal audit report nested within the positive variable. For example, the model equation using SAS for the first variable is  $\text{ChangeDecision} = \text{Positive InitialDecision (Positive)}$ . See footnote 15 for an additional explanation. Variables are defined as follows:

*ChangeDecision*: Participants were asked an initial question of whether they would recommend the turnaround be postponed or not. Then participants received the internal audit report that recommended they change their position. This is a dummy variable that takes the value of one if the participant changed their position and zero if they did not.

*ChangeConfidence*: Participants were asked, "How confident are you that you made the right choice?" (on an 11-point scale) both before and after they received the internal audit report. This variable measures the change in their responses. Higher values indicate they are more confident after receiving the internal audit report.

*RelyOnInternalAudit*: The answer to the question, "To what extent did you rely on [the internal auditor's] presentation in your decision?" The variable is labeled on an 11-point scale with greater values indicating more reliance.

*IAAddsValue*: The answer to the question, "I believe that [the internal auditor's] recommendations added value to my decision". The variable is measured on a 7-point agree/disagree scale with lower values indicating more agreement.

*IAInfluential*: The answer to the question, "I believe that [the internal auditor's] recommendations were influential in my decision making". The variable is measured on a 7-point agree/disagree scale with lower values indicating more agreement.

*ImplementIASuggestions*: The answer to the question, "I am likely to implement suggestions by [the internal auditor] in the future". The variable is measured on a 7-point agree/disagree scale with lower values indicating more agreement.

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