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To the Financial Reporting Council at AQIs-Consultation@frc.org.uk:

I am responding to your request for comment to your Consultation Document: Firm Level Audit Quality Indicators, dated June 2022. In addition to reading your consultation document, I also reviewed the FRC's AQR Thematic Review of Audit Quality Indicators. My response pertains specifically to your question #7. Elements of my response also have a bearing on your questions # 2, #5, and #6. My response speaks to certain experiences with AQIs in the United States that I hope will benefit the Financial Reporting Council's AQI initiatives.

My Background

I am a licensed CPA in the United States and a retired KPMG audit partner. I am also a former employee of the Public Company Accounting Oversight Board ("PCAOB") with nine years of experience at the PCAOB, including six years as a Regional Associate Director with leadership responsibility for the PCAOB's Orange County and Los Angeles offices. More recently, I have served as an expert witness in matters pertaining to accounting, auditing, financial reporting, and internal controls.

In 2020, I authored a book titled, ***"The Truth About Public Accounting – Managing the Risks the Auditors Bring to the Audit."*** My book website can be viewed at www.TheTruthAboutPublicAccounting.com.

I am also the author of a recommendation in 2007 to the United States Treasury Department's Advisory Committee on the Auditing Profession ("ACAP") that audit firms be required to publicly report certain operational metrics which I referred to as "Audit Quality Drivers." This recommendation gave rise to the ACAP Final Report recommendation that the PCAOB evaluate the feasibility and potential benefits of providing transparency to attributes that are relevant to audit quality. Audit Quality Indicators became a strategic priority at the PCAOB in 2013 and the PCAOB published a concept release on Audit Quality Indicators in 2015. As you might imagine, I have closely followed the AQI initiative and have regularly contributed to advancing the AQI initiative in the United States. My efforts have included responding to requests for public comment from both the PCAOB and SEC, publishing articles and webcasts, public speaking, and publishing my book.

In September 2021, I submitted a public comment[1] to the SEC's Investor Advisory Committee's panel discussion regarding Competition and Regulatory Reform at the PCAOB. That public comment letter has been appended to this letter. My response to the FRC's request for consultation refers to various parts of my public comment to the SEC's Investor Advisory Committee. My public comment garnered considerable favorable attention and support from the SEC IAC panel which included Lynn Turner, Colleen Honigsberg, J.W. Verret, Alistair Thompson, Sara Lord, and Wes Bricker.[2]

Question #7 – Are there any other comments you wish to make about these proposals, including concerning costs, benefits, or impacts not discussed above?

My Response – I wholeheartedly support your efforts and I am impressed with all that the FRC has accomplished. My response speaks to certain experiences with AQIs in the United States that I hope will benefit the Financial Reporting Council's AQI initiatives.

Providing Context to AQI Data

Shortly after the PCAOB published its Audit Quality Indicator Concept Release in 2015, The Center for Audit Quality conducted pilot testing involving members from various public company audit committee meetings. The audit committee members spoke favorably about the benefits of AQIs. However, a common concern expressed by the participants was the AQI's lacked context.

The reason the AQI's lacked context was that the participants were not given AQI data from competing audit firms in the same geography. I see an easy solution to this problem. It begins with collecting AQI metrics at the engagement level that can be easily rolled up into office level (or regional level) metrics for both the incumbent firm and the competing firms in the same geography. Absent historical data from competing firms, the audit committee is left to compare actual results for the incumbent against promises from the competing firms. Knowing that the competing firms will over-promise and under-deliver does nothing to stimulate meaningful competition. It is critical that metrics for the competing firms in the same geography be compiled to stimulate meaningful competition. This can be done by defining the metrics in ways that make adding and averaging them meaningful. The following pages of my attached response to the SEC Investor Advisory Committee provide further detail about how this can be accomplished and the related benefits:

- The bottom of page 2
- The bottom of page 6 through page 11
- The middle of page 14 through page 17

[1] See 26528-9199096-249728.pdf (sec.gov)

[2] A video webcast of this meeting can be accessed at 2021 09 09 IAC Meeting Part 2 - YouTube

I believe this approach will also resolve the computational challenges stemming from trying to separately track data for PIE and non-PIE entities (the subject of your question # 2).

The Competition Among the Audit Firms for Professional Talent

There is another powerful benefit from office or regional geographic AQIs that merits attention. The geographic or regional metrics for competing firms would also be of keen interest to prospective employees. As we all know, the accounting profession is suffering from a talent shortage. College students are turning away from careers in accounting in favor of other majors. Word spreads quickly via social media from employees at the largest audit firms back to the college campuses about the absence of work-life balance at the audit firms. As it stands currently, audit firms are increasing staff salaries and passing those higher costs along to public company clients in the form of higher audit fees. The result is that public companies are paying for the ill-effects of human capital mismanagement by the largest audit firms. Transparency of AQI's concerning workloads, turnover, supervision, and training can activate competition on work-life balance rather than simply competition on salary.

Firmwide AQI's Relevant to Human Capital Management

If I understand correctly, the FRC is not contemplating firm-wide measures related to human capital (i.e., staff workloads, turnover, experience levels, staff continuity, total staff and manger hours managed per partner, etc.). Once this data is available at the engagement level and the geographic level, it should be easy to roll up to a firm-wide audit practice level.

Closing Comments

I think you will find my attached SEC Investor Advisory Committee submission to be of broad interest beyond the specific pages I have highlighted in this letter. I encourage you to read the attached public statement in its entirety. I would also be pleased to answer any questions you may have.

Best regards,

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USA

Public Statement re Audit Quality Indicators for the SEC Investor Advisory Committee Meeting on September 9, 2021

by Robert A. Conway, CPA
[redacted]

Executive Summary

The Treasury Department's Advisory Committee on the Auditing Profession (ACAP) made a recommendation to the PCAOB in 2008 about the potential benefits of "Audit Quality Indicators" (AQIs). This recommendation was well received by many stakeholders, including the Center for Audit Quality. However, a series of missteps resulted in the failure of the PCAOB to realize the benefits of this opportunity. This recommendation should be a priority for the PCAOB with full support from the SEC.

This opportunity stems from a recommendation I made to ACAP in November 2007 that was the subject of a robust discussion by the ACAP on April 1, 2008. I had observed that the audit profession business model was suffering from the ill-effects of commodity pricing caused by the inability of the audit firms to differentiate themselves on quality. To achieve suitable levels of profitability under commodity pricing, the audit firms have resorted to squeezing their professionals excessively for productivity. This has resulted in an audit firm business model defined by operational metrics that indicate heavy workloads at the staff and partner levels, high turnover, low year-over-year engagement continuity of staff, low experience levels, and low levels of supervision. **This business model is a mismatch for the complexity that auditors need to master and exposes investors to the heightened risk of an audit failure.**

I recommended to ACAP that the downward spiral of commodity pricing could be reversed if audit committees and prospective employees had visibility to these operational metrics. My thinking was that competitive forces would drive audit committees and prospective auditors toward the audit firms with the more favorable mix of operational metrics (rather than simply the lowest fee or the firm offering the highest wage). Several high profile ACAP members supported the benefits of greater transparency, while some cautioned that the PCAOB should not proceed without evidence correlating better operational metrics with better audit quality outcomes. Over the following decade, academia has validated these correlations.

In wrapping up the ACAP discussion, Don Nicolaisen, former SEC Chief Accountant and ACAP Co-Chair observed, "**The firms compete primarily on the basis of cost. That's been the history of the profession and it has been disastrous for investors and for the firms. … it is in the best interest of everyone to identify some of those things that would provide audit committees and investors an opportunity to better understand how the firms compare amongst themselves**. And what are some of those things that would lead you to engage an audit firm, other that price." Arthur Levitt, former SEC Chairman and ACAP Co-Chair said, "I think that's very important point. … I completely agree with Don that this is a very important issue."

While my original recommendation was focused on input metrics, ACAP broadened the discussion to include output measures. ACAP's 2008 Final Report recommendation reads as follows:

> "Recommend the PCAOB, in consultation with auditors, investors, public companies, audit committees, boards of directors, academics, and others, determine the feasibility of developing key **indicators of audit quality** and effectiveness and requiring auditing firms to publicly disclose these indicators. Assuming development and disclosure of indicators of audit quality are feasible, require the PCAOB to monitor these indicators."[1]

The PCAOB published a concept release on Audit Quality Indicators on June 30, 2015. Many favorable comments were received in response to the concept release. The Center for Audit Quality later conducted pilot testing with audit committee members that was favorably received, although some participants stated that some AQIs lacked context.

Unfortunately, the search for "indicators of audit quality" morphed into the search for a definitive set of measures of audit quality. Many threw up their hands and concluded, "Audit quality defies measurement." The momentum for AQIs was lost. I honestly never believed that audit quality could be definitively measured, nor do I believe this is what ACAP intended. **The real question with respect to any metric should have been: "Are audit committees better off with this information than without it?" The answer is clearly "Yes."**

One of the more interesting observations to come out of the ACAP deliberations was that audit committees have little in the way of tangible information to differentiate one competing audit firm over another. My recommendation sought to change that by focusing on information relevant to the most visible flaws in the audit firm business model: heavy workloads, high turnover, low year-over-year engagement continuity, low experience levels, and low levels of supervision. My recommendation was not a silver bullet. Yet it remains a very practical and actionable solution to human capital mismanagement by the audit firms that has plagued the profession for decades and appears to be getting worse.

Once we achieve public company audit team reporting of operational metrics to their respective audit committees, a database for all public company audits conducted by a given audit firm can be aggregated by geography (for public reporting by audit firm by geography). This will provide the much-needed context sought by participants in the CAQ pilot program. This means that audit committees can compare the engagement metrics and office metrics of the incumbent auditor against the office metrics of competing audit firms. This means that audit firms will compete, at least in part, on quantifiable data rather than simply promises and price. The geographic data could then be rolled up further for firmwide public reporting. The firmwide reporting should naturally include output indicators which could include data points such as the number of restatements (perhaps sorted into categories providing some indication of the severity of the restatement), a description of lawsuit settlements and sanctions, the number of clean audit opinions for

[1] See https://www.treasury.gov/about/organizational-structure/offices/Documents/final-report.pdf for ACAP Final Report dated October 2008 (page VIII:14).

companies that filed for bankruptcy in less than 12 months from the date of the prior audit report, the results of the most recent PCAOB inspections, etc.

One of the looming clouds on the horizon for the profession is the declining number of people graduating from college with a major (or concentration) in accounting and the declining number of people seeking to obtain CPA licenses.[2] Most people entering public accounting today see their time in public accounting as a short-term "resume enhancer" rather than a longer-term career. Social media has gotten the word out about the absence of "work-life balance" in public accounting. Attracting and retaining good people for the profession has become increasingly difficult. **It is possible that this may rise to the level of a crisis**. Audit regulators should look closely at the pipeline of CPAs to fulfill core financial reporting needs(without excessive offshoring to India and other low-cost locations) before allowing the auditing profession to audit ESG reports.

There was another element of my ACAP recommendation that also merits consideration. I spoke of using the input metrics (such as workloads, year-over-year staff continuity, experience levels, the ratio of staff and manager hours to partner hours) to define safe zones of operation. One of the biggest problems I see today is that audit committees are often unaware of whether their audit fell victim to human capital mismanagement (i.e., excessive workloads, high turnover, low year-over-year continuity of engagement staffing, low experience levels, low levels of supervision, etc.). A good system of quality control should monitor audits as they progress to identify any audit activities that may be operating outside of pre-defined safe zones. If audits are being conducted outside of the safe zones, the audit committee needs to be informed and the audit firm should explain to the audit committee what remedial action the auditors are undertaking to assure that audit quality is not compromised. This concept is a natural fit for the re-write of the PCAOB's antiquated QC standards.

These concepts are discussed further in my book titled "***The Truth About Public Accounting – Understanding and Managing the Risks the Auditors Bring to the Audit***." If you happen to read my book, you will see that my observations are well rooted in data from academic studies, audit firm transparency reports, PCAOB inspection reports and speeches, and news reports. The remainder of this paper delves into further detail as follows:

I. My 360° Perspective on the Auditing Profession
II. The Logic Driving ACAP's Recommendation about Audit Quality Indicators
III. Practical Examples of the Benefits of AQIs
IV. Lessons Learned from the History of Deliberations About the AQI Opportunity
V. Steps to Operationalize Input AQIs and Incorporate into the QC Standard
VI. Confirming Signals that the Time is Right for AQIs
VII. What About Output Measures of Audit Quality?

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2 See 2019 Accounting Graduates Supply and Demand Report (aicpa.org)

I. My 360° Perspective on the Auditing Profession

I am a retired KPMG audit partner. I worked at KPMG for 26+ years, including 17 years as an audit partner. After retiring from KPMG, I joined the PCAOB where I worked in the Inspection Division from 2005 to 2014. During my last six years at the PCAOB, I was the Regional Associate Director with leadership responsibility for the PCAOB's Orange County and Los Angeles offices.

After leaving the PCAOB, I worked for three years as the Professional Practice Director at CNM LLP, an 85-person regional CPA firm in Southern California focusing exclusively on technical accounting consultations and SOX 404 outsourcing for public companies. My responsibilities put me in regular contact with Big Four audit partners, public company CFO's, Chief Accounting Officers, audit committees, and SOX compliance officers.

I recently published a book titled, "**The Truth About Public Accounting – Understanding and Managing the Risks the Audit Firm Bring to the Audit**." I currently provide expert witness services on a part-time basis in controversies involving auditing, accounting, and corporate governance.

II. The Logic Driving ACAP's Recommendation About Audit Quality Indicators

My 2007 recommendation to the US Treasury Department's Advisory Committee on the Auditing Profession (ACAP) was widely credited with providing the impetus for ACAP's final report recommendation regarding Audit Quality Indicators.[3] My original recommendation can be accessed from the "publications" tab at www.TheTruthAboutPublicAccounting.com. While the focus of my ACAP recommendation was on input measures, ACAP modified my original recommendation to include output measures of audit quality. The PCAOB ultimately published a Concept Release on Audit Quality Indicators in June 2015 that was well received by audit committees, audit firms, academia, and the Center for Audit Quality. However, the PCAOB has yet to implement the Audit Quality Indicator concept.

My Experiences and Observations Giving Rise to My 2007 ACAP Recommendation

My experiences in public accounting led me to question why our free enterprise system and competition has not yielded a better equilibrium point between the profitability of audits and the quality of audits. The fundamental premise of my 2007 public comment to ACAP was that the audit firms have failed to differentiate themselves based on attributes related to quality. In fact, the ACAP deliberations confirmed that audit committees typically have very little information to judge an audit firm's ability to deliver on quality beyond industry experience of engagement team members (when that experience is relevant). As a result, audit services have fallen victim to the ill-effects of commodity pricing. To achieve suitable

[3] See webcast at http://pcaobus.org/News/Webcasts/Pages/10222008_SAGMeeting.aspx . Select Day 1 session at 2:02:45.

levels of profitability to sustain each audit practice, the audit firms have resorted to squeezing their professionals for productivity – leading us to the current audit firm business model characterized by heavy workloads, high turnover, low experience levels, and low levels of supervision.[4]

The fundamental risk of this business model is that audits conducted by inexperienced staff with minimal year-over-year continuity pose a heightened risk of undetected errors leading to an audit failure. This heightened risk is compounded by the concurrent risk that the audit may not adequately supervised due to heavy partner and manager workloads. Further compounding this risk is the perception that reporting deadlines are seemingly fixed, leaving some auditors wishing they had more time to conduct a better audit. This business model is a complete mismatch for the complexity auditors need to master in today's environment to achieve suitable levels of audit quality.

Furthermore, the high-turnover business model is inherently inefficient due to 1) excessive recurring costs for recruiting and training excessive numbers of new auditors, 2) higher staff hours due to the learning curve effect associated with low year-over-year engagement continuity, 3) elevated expenditures for legal costs and settlements due to failed audits, and 4) lost clients due to service issues.

My recommendation was that audit firms be required to publicly report certain operational metrics which I referred to as "Audit Quality Drivers." The thinking behind this recommendation was that the operational metrics of competing audit firms would be of interest to the purchasers of audit services and competitive forces would drive audit firm leaders to improve their operational metrics in a direction conducive to improving audit quality. After all, what audit firm leader would want to be in last place when the metrics are published and what audit committee would desire to engage an audit firm with the least desirable blend of operational metrics? Additionally, what prospective employee would seek employment with the audit firm with the least desirable blend of operational metrics? The six metrics I proposed and the desired direction of improvement are summarized below (with one recent addition pertaining to the use of specialists):

Audit Quality Driver / Metric		Desired Direction of Improvement
Years of experience after CPA licensing	>>>	More experienced professionals
Percent year-over-year team continuity	>>>	Better audit team continuity
Chargeable hours per professional	>>>	More reasonable staff workloads
Chargeable hours managed per partner	>>>	More reasonable partner workloads
Ratio of audit staff to partners	>>>	Better supervision
Training hours per professional	>>>	Increasing technical excellence
Specialist hours as a percentage of plan	>>>	Appropriate level of specialist time

[4] My characterization of the staffing model is based on evidence from academic studies and my analysis of certain transparency reports, all of which are described in chapter 2 of *The Truth About Public Accounting*.

These metrics can be measured at the engagement level, office level, and firmwide. Several of these metrics are already tracked by many of the largest firms, although computational differences likely exist.

In my ACAP recommendation, I also suggested the need for audit firms to define "Safe Zones of Operation" using audit firm operational metrics. If certain operational metrics move beyond safe tolerances, mitigating or compensating action should be undertaken. Audit reports should not simply continue down the conveyer belt if safe zones of operation have been compromised. The concept of safe tolerances for the operation of equipment is fundamental to everyday life. This same concept should be applied to audits. Audit committees should be informed whether their audit had fallen victim to human capital mismanagement and what, if anything was done by the audit firm to assure that audit quality was not compromised.

III. Practical Examples of the Benefits of AQIs

Managing the Audit Firm Business Model Risk

Audit committees need to be informed consumers of audit services in order to provide effective oversight of the auditor. That starts with recognizing that the audit committee is buying expertise when it engages an audit firm to conduct an audit. Any customer buying a product or service normally wants to be sure they got what they paid for. Meeting periodically with the auditor to discuss the progress of the audit and receiving a signed audit opinion does not assure that the audit committee received the expertise it paid for. The PCAOB's characterization of audits as "credence goods" merits repeating here:

> "Audits currently may fall within the class of what economists call "credence goods." That is, the quality and impact of the auditor's services may be difficult or in some cases impossible to ascertain accurately. The auditor is usually in the best position to determine the scope of the service required; the client has limited ability to make a similar judgment, and the outcome of the service – the quality of the audit – **is either unobservable or can only be observed at significant cost to the audited company or others**." [5]

Audit committees should not simply throw up their arms and declare, "Audits are credence goods. There isn't much we can do to assure that we got what was promised." To demonstrate this point, assume for a moment that you are on an audit committee that engaged an audit firm to conduct "**The Audit Promised**" in the table below:

[5] PCAOB AQI Concept Release, p.6 at https://pcaobus.org/Rulemaking/Docket%20041/Release_2015_005.pdf

Attribute	The Audit Promised	The Audit Delivered
Workloads	3 hours of overtime per week per professional	20 hours of overtime per week per professional
Staff continuity (year-over-year)	80% staff return rate	50% staff return rate
Weighted average years of staff experience post-CPA licensing	3 years	1 year
Ratio of staff hours to partner hours	7 to 1	10 to 1
Actual specialist time as a percentage of the 60 hours of specialist time planned	100%	70%

During the contracting process, the audit partner made oral promises that were consistent with the assumptions in "The Promised Audit" column. The promises may have been made along the following lines: 1) the audit would be appropriately staffed to minimize overtime and a crunch at the end of fieldwork, 2) a high percentage of the audit team from the prior year would return for this year's audit, 3) the audit would be staffed by experienced personnel (partly due to the high percentage of professionals returning from the prior year), 4) there would be a high level of partner supervision and review that would reduce the ratio of staff to partners (the so-called leverage ratio), 5) there would be approximately 60 hours of specialist time. These types of promises, either implicit or explicit, are made all the time. Further assume in this case that industry expertise is not a differentiator. I will separately discuss industry experience later on.

"The Audit Delivered" column above reflects what actually happened. It is clear the audit firm over-promised and under-delivered. The information suggests a heightened risk that audit quality may have been compromised. What did the audit firm do to mitigate that risk? Or did the audit simply roll off the assembly line and that was it?

Ironically, the use of less experienced professionals, a higher mix of staff to partner hours, and less time incurred by specialists all contribute to a more profitable audit for the audit firm. Each of these factors lower the audit firm costs and increase profitability of "The Audit Delivered" relative to the "Audit Promised." So the audit firm is financially rewarded when it delivers less expertise to its clients!

Holding the Audit Firm Accountable

In the example above, the audit committee contracted for a level of expertise that was not delivered. If I entered into a contract with a builder to construct a custom house with fire-proof clay tile roofing and marble flooring, but the builder used wood shingles for the roof and installed linoleum flooring, I would have various remedies. I could insist that the materials used by the builder be replaced with the materials specified in our contract. Alternatively, and at the very least, I would expect a downward adjustment to the contracted price for my house. Audits should be no different.

You are not simply buying an audit opinion. You are buying time and expertise (as measured by credentials and years of experience) to be delivered at specific intervals. Continuity of the team year-over-year is also an important element of what you are buying. Some simple changes to the way you contract for audit services can enhance auditor accountability.

Agree with your auditor as to the workloads, continuity, and experience levels of the staff, partners, and specialists who will conduct your audit. Agree on milestones, dates, and the time to be incurred for each of the major audit milestones (planning, interim, final before earnings release, earnings release until 10-K filing, and the archiving period). Further delineate the time elements separately across these periods by staff, partner, and specialists.

At the conclusion of the audit, compare what the auditor promised to what the auditor delivered. If the auditor over-promised and under-delivered, there should be consequences – such as a reduction in fees. Most importantly, the auditor should also be able to articulate what the audit firm did to assure that audit quality was not compromised.

I have one other point of emphasis. The timing of the auditors' professional effort can be just as important as the absolute amount of time and expertise delivered. If the supervisory review occurs late in the audit cycle, time pressures can undermine the quality of the supervisory review. Time pressures can also undermine a partner's fortitude to do the right thing when earnings release dates or SEC filing deadlines are looming. The timing of staff hours can be very important, too. Hours that are back-end loaded are likely to be inefficient. Quality may suffer because insufficient time remains to deal with issues that may arise.

Let's Consider Another Scenario – Competitive Bidding

Assume the audit committee has decided to seek a competitive bid. To keep the example simple, I will assume that there is only one competing bidder and the incumbent auditor submitting proposals. Both audit firms assemble great looking glossy proposals. Both audit firms give great oral presentations. Both firms have similar industry expertise. The incumbent's audit fees as reported in the last proxy were $750,000. Both the incumbent auditor and competing audit firm estimate fees of $700,000 for the upcoming audit. The audit committee decides to retain the incumbent auditor, noting that audits are credence goods. Therefore, it is difficult to differentiate one audit firm from another. The audit committee concludes it has done its job by making sure the public company is not overpaying for its audit.

Let's also assume that the concept of using audit firm operational metrics to better inform the auditor retention decision-making has caught on. Thanks to changes in the proxy rules and a little help from Audit Analytics, audit firm operational metrics are now available by audit firm by geographic area. This means audit committees have access to actual data about the competing bidder's public company audits in the local geography for the last audit cycle (the middle column in the table below). The audit committee also has the engagement level metrics from the incumbent auditor's last audit cycle. The proposed fees for the competing bidder and the incumbent auditor are still the same at $700,000. Both audit firms have made all kinds of promises. Which auditor do you choose?

Attribute	The Competing Bidder	The Incumbent Auditor
Workloads	3 hours of overtime per week per professional	20 hours of overtime per week per professional
Staff continuity (year-over-year)	80% staff return rate	50% staff return rate
Weighted average years of staff experience post-CPA licensing	3 years	1 year
Ratio of staff hours to partner hours	7 to 1	10 to 1
Actual specialist time as a percentage of the 60 hours of specialist time planned	100%	70%

Before reaching a conclusion, the fact pattern deserves discussion and analysis to be sure that the data was prepared on a comparable basis. Additionally, are there any extenuating circumstances that should be considered? I would hope and expect that the audit firms would want to include their own version of "Management's Discussion and Analysis" to provide information that is relevant to understanding the numbers, including any significant variances from data published in firmwide transparency reports.

Let's assume that after further analysis, the historical information in the table is considered representative of actual results from the last audit cycle. Historical information is typically a good indicator of what to expect in the future – although there is no guarantee. That said, the competing bidder appears to have a better foundation for delivering an audit of high quality. As I have said previously, a favorable array of operational metrics increases the likelihood of a good audit. However, it does not guarantee a good audit. There are also a multitude of intangible factors that affect audit quality -- such as the audit partner's fortitude to do the right thing despite other pressures such as client retention that may lead the audit partner down a less noble path.

Another way to look at this is to ask, "Do the operational metrics of the incumbent auditor suggest that the incumbent auditor may have a more difficult time achieving good audit quality?" Yes, each indicator suggests that the incumbent auditor's business model puts it at a disadvantage compared to the competing bidder.

Here are the salient points:

- Less overtime favors better judgments and decision-making. Too many late nights can undermine the drive to follow through on potential red flags.   Less overtime also has a favorable effect on staff retention.
- Better year-over-year staff continuity improves auditor efficiency and productivity. This means the auditor is better poised to identify and follow through on potential issues.   Better retention also contributes to more favorable experience levels.
- Higher experience levels enable the audit staff to better cope with the complexity of today's commerce, accounting standards, and auditing standards. It also translates into better productivity that allows for more attention to the identification and resolution of issues identified during the audit.
- A lower ratio of audit staff to partners means better partner supervision and review which increases the likelihood that potential issues are identified and properly vetted in a timely manner rather than overlooked in the rush to the earnings release date.
- The delivery of planned time by specialists in areas such as valuation techniques and income taxes are important given the complexity and sensitivity of these areas to judgments and assumptions.

The Virtues of Competitive Forces

The incumbent auditor probably had a pretty good idea that the competing bidder was going to win the proposal – not based on price -- but based on the operational metrics that are foundational to achieving audit quality. All other things being equal (yes – that is an assumption), the competing bidder provides an audit firm business model that is more conducive to audit quality. The message to the losing incumbent auditor is that they need to improve their business model to be more competitive or they are sure to lose more clients. This is how transparency of the operational metrics can drive competition in a direction that improves audit quality.

The Audit Committee Can Demonstrate Greater Ownership for Auditor Retention

I like the concept that Sarbanes-Oxley assigns clear responsibility to the Audit Committee for selecting and retaining the auditor. However, the benefit of that responsibility is diminished when the audit committee has limited information for making an informed decision about auditor retention. Inevitably, most audit committees are still looking to management to make a recommendation about auditor retention. Audit quality metrics in the hands of audit committee members will further reduce the influence of management on the auditor retention decision – which is a key step in enhancing auditor independence from management during the conduct of the audit.

"The Devil You Know versus the Devil You Don't Know"

I have heard this phrase uttered all too often from audit committees evaluating a decision about whether to change auditors. This kind of thinking favors retention of the incumbent auditor. If the audit committee has AQI data that indicates that the incumbent is underperforming relative to a competitor, it will be harder for the audit committee to justify staying with the underperforming auditor. Periodic rotation of auditors is a good thing, particularly if the incumbent auditor is underperforming.

The Importance of Industry Expertise

In the last example, I assumed that the industry expertise of the incumbent auditor and the competing bidder were similar. Of course, that is not always the case. Engagement team industry experience is critical to audit quality in situations where industry experience is relevant. The more significant industries that come to mind include oil and gas, financial services, real estate, health care, insurance, airlines, and software. Expertise in technology, life sciences, manufacturing, and retail can also be important.

Academic studies have correlated industry relevant experience with better audit outcomes. Industry expertise of the auditor is the one dimension where audit committees have been able to make reasonable qualitative judgments across competing firms – and they should continue to do so. Think of industry expertise as an additional qualitative indicator.

IV. Lessons Learned from Past Deliberations About the AQI Opportunity

PwC signaled a willingness to move forward rapidly with the transparent disclosure of audit firm operational metrics during the ACAP proceedings. In his testimony before ACAP in December 2007, Dennis Nally, Chairman and Senior Partner of PwC LLP, stated, "We also believe that public disclosure about key elements that drive audit quality would be a useful benefit to the capital markets. This public transparency we envision could include firm disclosure and discussion of the levels of partner and staff turnover, average hours of professional training, risk management and compliance measurements, and metrics related to the quality of management and firm governance processes."[6 and 7]

The PCAOB held a meeting of its Standing Advisory Group immediately after the publication of the ACAP Final Report in October 2008 to discuss the implications of the ACAP recommendations. While most participants were very supportive, there were those who questioned moving forward without first validating the correlation between audit quality and the metrics under consideration for disclosure. The good news is that academia responded to the "correlation challenge" and has validated the correlations one would expect between operational metrics I originally advanced and audit quality.[8]

After ACAP published its final report recommendations in October 2008, other audit firms signaled a willingness to move forward on the transparency opportunity. The only pacing item was word from the PCAOB as to which blend of metrics should be disclosed. Unfortunately, a series of operational issues at the PCAOB stalled progress on the transparency initiative, including 1) the Madoff scandal and the need to launch a broker-dealer inspection program, 2) an external challenge to the constitutionality of the PCAOB, and 3) vacancies on the PCAOB Board prolonged by the constitutionality challenge.

The PCAOB renewed its focus on the transparency opportunity when its Audit Quality Indicator (AQI) project was identified as a strategic priority beginning in 2013. Meanwhile, PwC gave up waiting for a decree from the PCAOB as to the desired blend of operational metrics for disclosure. In 2014, PwC published its first transparency report titled "Our Focus on Audit Quality." That publication incorporated substantially all metrics I had originally proposed and several more – all at a US firmwide level. Each of the other Big Four firms have since produced annual firmwide transparency reports with disclosures of firmwide operational metrics at various times. These reports generally show comparative year-over-year data so that trends can be discerned. There has generally been useful commentary about the trends and the directions the firms are heading. While these disclosures are insightful, the comparability of disclosures across firms is limited.

One Step Forward and Two Steps Backward

In 2015, the PCAOB published its concept release on Audit Quality Indicators offering up a menu of 28 possible audit quality indicators. The underlying concept was that the menu of potential indicators would be narrowed down to something more manageable. What

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6 The complete text of Dennis Nally's testimony before ACAP on December 3, 2007 can be seen at https://www.treasury.gov/about/organizational-structure/offices/Documents/Nally%20Testimony%2012-03-07.pdf.

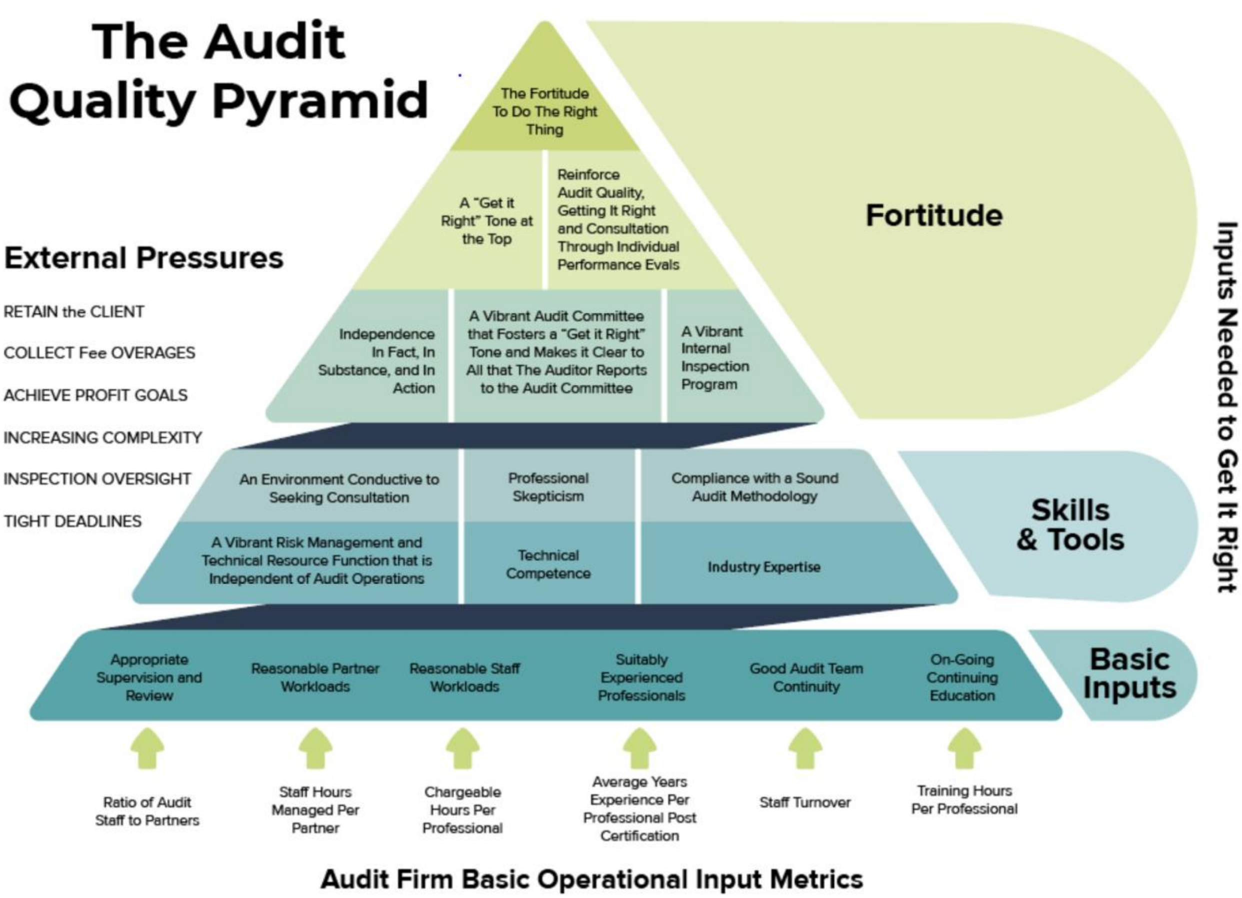
7 I learned a few years later that Nally's remarks were inspired by my November 11, 2007 ACAP recommendation.

8 See Audit Committees, Audit Quality, and Investor Protection | PCAOB (pcaobus.org) for a speech by PCAOB Board Member J. Brown on September 27, 2019.

ensued was a search for the definitive measures of audit quality. Concern was expressed about unintended consequences. Not surprisingly, many concluded that audit quality defies measurement and the AQI initiative lost momentum. I had never suggested that audit quality could be definitively measured. The real question that should have been asked was:

Are We Better Off with Operational Input Metrics than Without? Answer: Yes!!!!

The right mix of basic inputs (workloads, expertise, supervision, turnover) does not guarantee audit quality. **However, the wrong mix of basic inputs (heavy workloads, high turnover, low experience levels and low supervision) can make it very difficult to achieve a suitable level of quality**. An audit team with heavy workloads, low experience levels, and poor supervision will be poorly equipped to identify issues. These factors are intuitive and have been validated by academia.[9] The absence of suitable experience and supervision will undermine professional skepticism and the ability to identify red flags and issues. Furthermore, if issues are identified late in the audit cycle (possibly because the partner is behind in his or her review due to workload issues), time pressures can undermine the fortitude to do the right thing. To facilitate and understanding of how various factors contribute to audit quality, I prepared the graphic below:



9 See https://pcaobus.org/News/Speech/Pages/Brown-Audit-Committees-Audit-Quality-Investor-Protection.aspx for speech by PCAOB board member J. Brown titled "Audit Committees, Audit Quality, and Investor Protection."

As you can see, the operational metrics are positioned at the bottom of the pyramid because they are foundational to achieving audit quality. They do not guarantee audit quality, but audit quality is hard to achieve without them.

Human capital is in the “Basic Input” row at the bottom of the pyramid. As you can see, I have identified metrics that provide useful insight into these basic inputs such as 1) the ratio of audit staff to partners, 2) staff hours managed per partner, 3) chargeable hours per professional, 4) average years of experience post-certification, 5) staff turnover, and 6) training hours per professional. These are the foundational inputs.

There are also “Skills and Tools” that encompass the audit methodology, technical resources, industry expertise, consultation programs, etc.

Further up the pyramid are the more qualitative elements that ideally support “The Fortitude to Do the Right Thing.” These elements include independence, tone at the top, and a vibrant inspection program.

Not only is human capital a foundational driver of audit quality, it is also the input with the highest degree of variability from audit to audit and office to office. So, it follows that better controls over human capital represent one of the richest opportunities to drive improvements in audit quality.

Firmwide Transparency and Engagement Level Metrics Are Not Enough -- Human Capital Metrics at the Engagement and Local Geography Level are Essential to Driving Competition that Will Improve Audit Quality

The Center for Audit Quality published “Audit Quality Indicators – The Journey and Path Ahead” in January 2016 to describe the results of the CAQ’s pilot testing on AQIs at the engagement level. While most participants in the pilot testing found AQIs very useful, many expressed concerns about the lack of context for the AQIs. The availability of operational metrics for all competing large firms in the same geography would provide much needed context, thereby increasing the utility of engagement level metrics.

If I am seeking bids from competing audit firms, it is not sufficient to simply have in hand the engagement level metrics for the incumbent auditor and the firmwide transparency reports for all competing firms. There is simply too much variability in audit quality from office to office and/or region to region. Here’s why:

Local office leadership is typically under considerable pressure to produce favorable bottom-line results. Local office leadership is also typically responsible for hiring and workload decisions that can have an enormous impact on the trade-off between office profitability and audit quality. If favorable results are achieved, local office leadership is handsomely rewarded. The tone at the top may also vary from office to office, as will turnover statistics. It would be naive to assume that the large audit firms deliver consistency across the country that rivals organizations like McDonalds, Avis, or Hilton Hotels.

There is also another factor to consider beyond the variability in quality across offices. Assume I know the engagement metrics for the incumbent firm. A competing firm can and will promise the moon. For instance, a common assertion in large firm audit proposals is, "Our team brings 125 years of experience relevant to your business." The reality is that the partners with the 125 years of experience are rarely seen except during the proposal process. Additionally, those partners who are directly involved in the audit contribute only a small fraction of the total hours. Wouldn't I rather have concrete historical information about the operational metrics of the competing firms in my geography rather than simply a handful of promises?

The only way I can truly stimulate competition on factors other than price and promises is to have concrete information about my incumbent auditor and the competing auditors in my same geography. This information is essential to empowering competition and stamping out the ill-effects of commodity pricing that have undermined audit quality for decades.

V. The Steps to Operationalize Input AQIs and Improve the QC Standard

I see a tremendous opportunity to drive meaningful improvements to the audit business model if Audit Quality Indicator concepts are incorporated into the PCAOB's approach to rewriting its antiquated quality control standards. The PCAOB's December 2019 concept release titled, "Potential Approach to Revision to PCAOB Quality Control Standards" does not contemplate such an approach. Instead, the PCAOB signaled a preference for mimicking International Standard on Quality Management 1 (ISQM 1) crafted under the auspices of the International Auditing and Assurance Board (IAASB). Such an approach lacks the opportunity to provide audit committees with meaningful information relevant to auditor retention decisions that can also drive much needed improvements to the audit firm business model.

ISQM 1 is a fundamentally a good starting point. It contemplates an internal system of monitoring audits and individual accountability. It can be a reasonable platform for incorporating the critical elements I envision:

1. Audit firm monitoring of input AQI metrics and reporting those metrics to the audit committee.
2. The aggregation of AQI metrics for all public company audits within a geographic unit for public reporting.

3. The audit committee report in the proxy should describe how it considered the AQI data, along with the mix of other available information, as part of its recommendation to retain or change auditors.
4. The identification of scalable "safe zones of operation" and with auditor reporting of instances when individual audits were conducted, in some part, outside of safe zones of operation.

Some have suggested that we need one global standard for quality control as a reason for not doing anything different in the US. That is a smoke screen. In my view, we can achieve a high degree of global harmony with supplemental requirements for AQIs applicable to auditors of US public companies. In due course, the AQI concept could extend out to material foreign locations; however, I would defer any such extension until a suitable degree of success has been achieved in the US.

I would also favor a pilot test rollout of the AQI concept in a couple of US audit markets that operate relatively autonomously. Offices like Phoenix and Denver come to mind as good candidates. Pilot testing in two geographies like Phoenix and Denver will help the PCAOB and the audit firms understand the degree of complexity and costs of compliance that can then be weighed against the perceived benefits.

If the pilot testing demonstrates that the collection and distribution of audit quality input metrics is feasible and effective at a reasonable cost, the requirements can then be folded into the quality control standards. These requirements should be mandatory for the Big Four in the US because the Big Four audit 98% of the US market capitalization. My initial thinking is that these requirements should be optional for all other firms, recognizing that the cost-burden may be disproportionately greater for the smaller audit firms. After pilot testing, the initial roll-out should focus only on material US audit locations of US public companies. I would defer any roll-out to material non-US locations until the US rollout is substantially complete.

Other PCAOB action steps would include:

- Survey the metrics already tracked by each of the largest audit firms, including the computational methods used to develop each metric. The PCAOB should understand the degree of difficulty and cost for each firm to migrate to a set of metrics that have a suitable degree of comparability.

- Identify the engagement level metrics to be reported by each auditor to the audit committee.

- Another early-stage step will be to understand how the audit firms are currently managed geographically. To the extent possible, the unit of account for aggregating the AQI input metrics should mirror how the individual offices are managed (because it is the management structure that is responsible for hiring, retention, and manpower planning). There will be some similarities and some differences across the Big Four in how the offices are managed geographically. The unit of account, in some instances may be individual large cities (like Phoenix or Denver) or larger geographic regions such as Ohio or Northern California that encompass multiple offices.

- Establish a mechanism for the aggregation of input AQIs from individual audits according to geographic units. The results for each geographic unit should be based on a weighted average of the results for each of the individual audits within the geography (perhaps weighted by something like total audit hours).

- Determinations will need to be made about whether AQIs at the engagement level should be confidential and reported by the audit firm only to the respective audit committee.

- I believe the AQIs aggregated by geographic "unit of account" should be publicly available to all interested parties, including prospective employees.

- Guidance will need to be developed that will enable the determination of "scalable safe zones of operation" that can be applied with a reasonably high degree of comparability across firms. That guidance will need to include monitoring and reporting of any audit operations occurring outside of the safe zones, including steps the audit team took to assure that audit quality was not compromised. Consideration should be given disclosing safe zone violations and the remedial action in the Critical Audit Matters section of the auditors' report.

The audit firms should be encouraged to provide their own commentary about the geographic AQI metrics, much like they currently do in the existing US firmwide transparency reports.

Many of the Big Four transparency reports display firm metrics for each of the last three years. I would favor a minimum of two years of comparative data. I could see permitting the first year to include only one year of results (to be mindful of the administrative burden of trying to compile two years of data during the initial year of adoption).

The SEC should modify the proxy rules to require the audit committee report to include a description of how the audit committee used audit quality metrics and safe zones of operation 1) to fulfill their auditor oversight role, 2) to evaluate auditor performance and 3) to determine whether an auditor change was warranted.

VI. Confirming Signals that the Time is Right for AQIs

The Global Trend toward More Robust Disclosures About Human Capital Management

The International Standards Organization (ISO) issued ISO 30414 in January 2019 titled, "Human Resource Management – Guidelines for Internal and External Human Capital Reporting." ISO noted that "It is well known that effective human resource strategies can have a positive impact on organization performance" and this is "the first International Standard that allows an organization to get a clear view of the actual contribution of its human capital."

The SEC also recently amended the Regulation S-K Disclosure Rules (effective in November 2020) requiring public companies to "include, as a disclosure topic, **human capital resources**, **including any human capital measures or objectives** that management focuses on in managing the business, to the extent such disclosures would be material to an understanding of the registrant's business, such as, depending on the nature of the registrant's business and workforce, measures or objectives that address the **attraction, development, and retention of personnel**." While these rules do not apply to the audit firms, it follows that such information about human capital management at each of the largest audit firms would be of interest to investors and audit committees.

In a similar vein, the PCAOB's auditing standard on "Critical Audit Matters" requires the auditor to communicate in the auditor's report any critical audit matters arising from the current period audit of the financial statements that involved especially challenging, subjective, or complex auditor judgment. A logical extension of that thinking would be to include a discussion about the auditors' management of human capital during the course of the audit – because the mismanagement of human capital can have a direct bearing on the auditor's ability to identify and deal with issues that are complex or involve considerable judgment. In particular, **I think the auditor should be required to disclose in Critical Audit Matters whether any "safe zones of operation" were violated during the conduct of the audit and, if so, what did the auditor due to assure that audit quality was not compromised.**

Support for AQIs Expressed by PCAOB Board Members Duane DesParte and J. Brown

The following comments by PCAOB Board Member Duane DesParte in a speech delivered on September 12, 2019 bear repeating here:[10]

> "[Audit] Firms can also identify key drivers of audit quality and develop related performance measures or metrics for use in setting targets, tracking actual results, and responding to performance shortfalls. As one example, as firms have found that quality tends to suffer if too much audit work is compressed in the period after the balance

[10] See Improving Audit Quality through a Renewed Focus on Quality Control | PCAOB (pcaobus.org)

sheet date, many firms are now formally tracking as a performance metric the proportion of audit procedures performed before year-end.

Finally, increasing the transparency of a firm's audit quality should also be a priority. While some firms today publicly issue audit quality reports, they are not required by the PCAOB, and there is no standard approach to facilitate comparisons across firms. Should there be certain standard metrics, or audit quality indicators, that all firms should be required to measure and report publicly so audit committees, investors and others can better differentiate between firms based on quality?

Excerpts from a speech by PCAOB Board Member J. Brown delivered on September 27, 2019 also bear repeating here:[11]

"Audit committees participate in the oversight of the external auditors. … In performing these tasks, audit committees have increasingly looked to, and relied on, audit quality indicators. AQIs have the potential to provide insight into the quality of a particular engagement or a particular firm and to enhance discussions between the audit committee and the auditor. They can also be used to stimulate competition among audit firms on the basis of quality.

In 2015, the PCAOB issued a concept release asking for comment on 28 possible audit quality indicators. These indicators fell into three categories: (1) audit professionals; (2) audit process; and (3) audit results. The effort resulted in 50 comment letters. The PCAOB also sought public input on the topic in connection with the strategic planning process undertaken in 2018.

AQIs can be critical to the retention or selection of an auditor. They can provide metrics and other information that encourage decisions based less on chemistry and more on objective indicia of quality. They also facilitate the ability to exercise oversight in a more skeptical, challenging, and independent fashion.

Determining which AQIs actually affect audit quality can, however, be challenging. Fortunately, recent academic research – some based upon data provided by the PCAOB — has offered potential help in this area. For example, the expertise of the engagement partner can matter, but so too can the experience and expertise of the other members of the engagement team. The industry and general expertise of the engagement quality reviewer can also impact the quality of the audit.

Perhaps unsurprisingly, overworked members of the engagement team can impair audit quality. As academic research has shown, concerns can arise when senior managers work long hours, particularly when this occurs during the fieldwork phase of the audit.

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[11] See Audit Committees, Audit Quality, and Investor Protection | PCAOB (pcaobus.org)

Academic research also suggests that reducing time compression can improve audit quality. Auditors of the largest US companies must finalize the work for the entire audit within sixty days after the end of the fiscal year. For most of these issuers, that means the audit report will be issued at the end of February or the beginning of March. The timeframe can create time pressure to finish an audit, particularly for issuers with global or complex operations. Research suggests that efforts to conduct more work before year-end can reduce this pressure and have a beneficial impact on audit quality.

Time pressure can also arise where public companies issue earnings releases well before the completion of the audit. Management is generally responsible for the content of the releases. Nonetheless, material differences between the earnings release and the financial statements can cause a noticeable reaction in the capital markets. Audit firms may sometimes seek to accelerate the completion of important audit procedures prior to the issuance of the earnings release, creating another form of time pressure.

Time compression may cause auditors to skip procedures, pay less attention to matters discovered during the audit, or otherwise fail to sufficiently exercise professional skepticism. Academic research has shown that reducing the time pressure by getting more work done before the end of the fiscal year can improve audit quality. Auditors might address concerns in this area through mandatory milestone completion dates, changes in staffing, adjustments made during the planning phase, and increases in the use of technology.

The Opportunity to Favorably Impact the Future of the Auditing Profession

The 2019 Main Street Investor Survey tells us that only 78% of US investors express confidence in audited financial statements. That strikes me as an abysmally low number. We should all strive to drive that statistic into the 90th percentile. I can't say this for a fact, but I would venture that the large audit firm mismanagement of human capital contributes to the low 78% confidence measure because 1) the mismanagement of human capital directly contributes to poor audit quality and 2) investors realize that the audit firm staffing model is a mismatch for the complexity auditors need to master to produce reliable audited financial statements.

Attracting and Retaining New Entrants into the Profession – A Crisis in the Making?

Given the complexity of auditing and accounting, the complexity of commerce, and the global reach of most companies today, it is important that the profession attract and retain the best and brightest. The human capital management issues I have described herein are not only driving talented professionals out of the profession, but they are also driving college students away from even considering the auditing profession as a career. As I described in my book, data shows that many enter public accounting with the intent of only staying for three years. Few see it as a career. With the advent of social media, there are no misconceptions on campus about the work-life imbalance associated with a career in public accounting.

The biennial "AICPA Trends in the Supply of Accounting Graduates and the Demand for Public Accounting Recruits"[12] (last published in 2019[13]) shows a declining trend over the most recently available three-year period (all pre-pandemic) in college accounting program enrollments, accounting program graduates, and the number of newly licensed CPAs. **We should all be concerned**.

Year after year, many express concerns about the profession's ability to attract and retain high quality professionals. Yes, there have been a series of initiatives to nibble around the edges of this problem; but no one has really taken the bull by the horns to directly deal with the work-life balance problem. It is important to fix the human capital management issues that exist today, not only to improve audit quality in the near term, but to also secure the pipeline of future professionals needed to sustain the audit profession into the future. **It is time for the PCAOB to take ownership of this issue.**

VII. What About Output Measures of Audit Quality?

Recall that the original ACAP recommendation asked the PCAOB to consider the feasibility and benefits of providing transparency to both input and output measures of audit quality. As I described earlier, the AQI initiative stalled because interested parties concluded that audit quality could not be measured. Lost in the discussion was whether there was benefit in disclosing the foundational input metrics. As explained earlier, I believe there is considerable merit to such disclosures.

I think the consideration of output measures should continue, but on a separate track that does not threaten to derail moving forward on the input AQI track. Many output measures such as restatements, sanctions, deferred prosecution agreements, individuals precluded from working on public company audits for a specified period, penalties, and legal settlements may only be meaningful on a firmwide level and should be considered for inclusion in firmwide transparency reports. But let's not let the consideration of output measures again derail the PCAOB's progress on input metrics. Nearly 13 years have passed since ACAP made its original recommendation to the PCAOB on input and output metrics. Forward progress is long overdue.

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[12] See 2019 Accounting Graduates Supply and Demand Report (aicpa.org)

[13] I understand from the AICPA that the pandemic was disruptive to recent trends and the AICPA may wait to publish the next "Trends" report in 2022.