

**THURSDAY, FEBRUARY 1, 2018**  
**AUDIT AND COMPLIANCE COMMITTEE MEETING**

Timothy P. Smucker  
W. G. Jurgensen  
Michael J. Gasser  
Jeffrey Wadsworth  
Hiroyuki Fujita  
John W. Zeiger  
H. Jordan Moseley  
James D. Klingbeil  
Lawrence A. Hilsheimer  
Amy Chronis  
Craig S. Morford  
Alex Shumate (*ex officio*)

Location: Longaberger Alumni House  
Mount Leadership Room

Time: 10:00-11:30am

*ITEMS FOR DISCUSSION*

1. *External Audit Update - Ms. Dewire* 10:00-10:05am
2. *Compliance and Integrity Program Update - Mr. Culley, Mr. Garrity-Rokous* 10:05-10:10am
3. *Audit and Compliance Committee Scorecard - Mr. Culley, Mr. Garrity-Rokous* 10:10-10:15am

Executive Session

10:15-11:30am

---

***The Ohio State University***  
External Audit Update for  
the Audit and Compliance  
Committee of the Board of  
Trustees

February 1, 2018



## **External Audit Update (as of January 8, 2018)**

### **All fiscal 2017 audit and attest deliverables have been completed, with the exception of Transportation Research Center, Inc. (TRC):**

- In relation to TRC's stand-alone audited financial statements, University management requested and was granted an extension by the Auditor of State moving the submission deadline from November 15, 2017 to January 31, 2018. We and management believe we are collectively on track to meet that revised submission date.
- Of note to the Committee, we issued an unqualified Report on Compliance with Requirements that could have a Direct and Material Effect on Each Major Program and on Internal Control over Compliance with the OMB Uniform Guidance.
  - There were no material instances of noncompliance nor were there any reportable findings identified.
- As a reminder, there were no material weaknesses or significant deficiencies identified in relation to the stand-alone financial statement audits at any of the components or affiliate levels, other than in relation to TRC.

### **Status of Planning for fiscal 2018 Audits:**

- Our planning process will commence in the near-term and will include discussions with management for areas of improvement, as well as considerations regarding staffing, risk assessment/ scoping and accounting changes.
- PwC's Audit Plan for fiscal 2018 will be presented at the next Committee meeting.

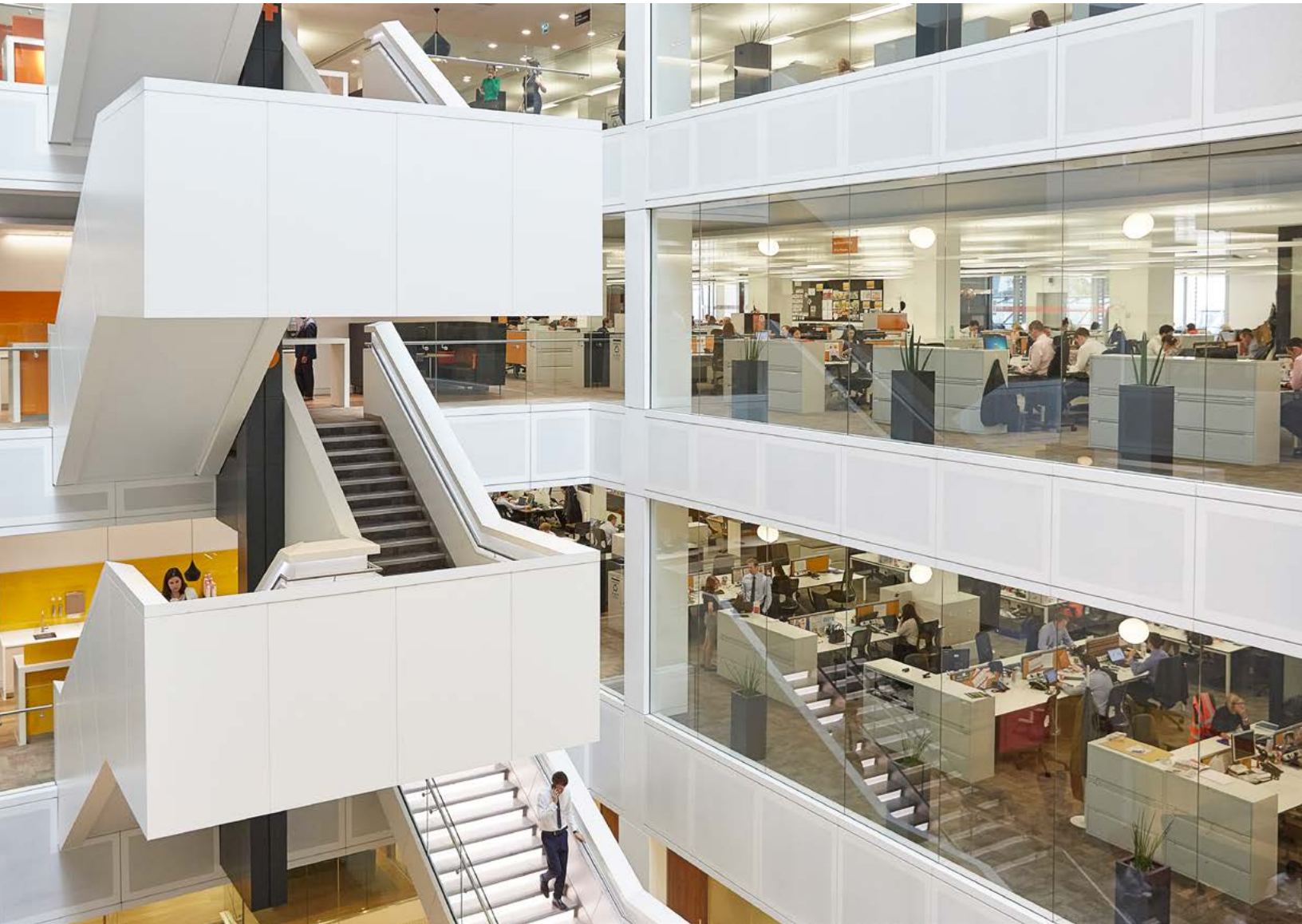
### **Appendices:**

- The following appendix has been included for the Committee's information reflective of past discussions and areas of interest. We would be happy to discuss in more detail at the Committee's request:
  - Appendix I: PwC's 2017 Audit Quality Report

# **PwC's 2017 Audit Quality Report**

# Our focus on audit quality

2017



# Table of contents

<b>Opening message</b>	<b>1</b>	<b>Technology</b>	<b>20</b>
		<i>Aura</i>	20
<b>Culture and values</b>	<b>2</b>	<i>Connect</i>	20
<i>Tone at the top</i> 	2	<i>Halo/Data auditing</i> 	20
<i>Accountability</i>	3	<i>Looking to the future</i>	21
<i>Ethics, independence, and objectivity</i>	5		
<i>Considerations in undertaking an audit engagement</i>	6	<b>Monitoring</b>	<b>22</b>
<i>Multiple lines of service</i>	7	<i>Continuous improvement cycle</i>	22
		<i>Pre-issuance reviews</i>	22
<b>People</b>	<b>8</b>	<i>Internal inspections</i> 	23
<i>Human capital strategies</i> 	8	<i>External inspections</i> 	24
<i>Our diversity and inclusion strategy</i>	12	<i>Analyses of quality drivers</i>	25
<i>Learning and development</i> 	13		
		<b>Stakeholder engagement</b>	<b>26</b>
<b>Approach</b>	<b>16</b>	<i>Professional and regulatory</i>	27
<i>Audit methodology and processes</i>	16		
<i>Resource management</i> 	17	<b>Appendix: Legal and governance structure</b>	<b>28</b>
<i>Consultation process and use of specialists</i> 	17	<i>Legal structure and ownership of the firm</i>	28
<i>Quality Review Partner</i>	19	<i>Board of Partners and Principals</i>	29
<i>Global network</i>	19		
<i>Quality across the network</i>	19		



Indicates the number of transparency data points included in the section.



**Tim Ryan**  
US Chairman and  
Senior Partner



**Maria Castañón Moats**  
US Assurance Leader

## To capital market stakeholders

### Welcome to the 2017 edition of our *Audit Quality Report*

We are proud of our efforts to continue to enhance audit quality and the role we play in the capital markets. The annual publication of this Quality Report provides us with an opportunity to share how culture, values, people, and processes come together to help us achieve our audit quality objectives.

### The quality journey

In a world that is changing rapidly, audit quality is a journey—not a destination. Each year we take action so that our audits continue to meet the challenges of evolving risks to reliable financial reporting, including changes to accounting standards, stakeholder expectations, and the business and regulatory environments in which we operate. We also assess our performance and learn from our experiences so that we can identify where changes will further enhance the quality of our audits.

### Increasing transparency data points

In our continued effort to provide further insight into our progress, we are increasing the number of transparency data points provided, from 16 to 18. While individual transparency data points have many inherent limitations and may not directly inform users of audit quality, we believe the suite of points provided, when combined with additional context and discussion in the report, give valuable insight to our stakeholders.

### Our ongoing commitment

As a firm, our purpose is to build trust in society and solve important problems. We can't accomplish this without a culture of excellence, integrity, and quality. That's why we remain committed to performing quality audits and to the continuous improvement of auditing and financial reporting. We also look for continuous improvement in our governance, which we enhanced this year by adding two external directors to our board. They will provide objective perspectives, insights, and expertise as we consider our firm's strategy.

Thank you for engaging with us and letting us share our progress.

# Our culture and values

---

*“When I think about what our clients and our stakeholders expect of us, and what we expect of ourselves—it all begins with quality.”*

—Tim Ryan, US Chairman and Senior Partner

---

## Tone at the top

Our leaders frequently and consistently message our purpose, which is to build trust in society and solve important problems. It drives our actions with clients and colleagues, informs our choices, guides our decision-making, and shapes our debates. Inherent in our purpose is our commitment to audit quality. Delivering high-quality audits is the cornerstone to fulfilling our purpose.

## Leadership responsibilities

We expect our partners<sup>1</sup> and staff to exhibit the core values underlying our purpose: act with integrity, make a difference, care, work together, and reimagine the possible. Key messages are communicated to our firm<sup>2</sup> by our Senior Partner, US Leadership Team, Assurance Leadership Team, Market Assurance Leaders, and Market Team Leaders. These messages are also reinforced and modeled by engagement partners.

Our Assurance Leadership Team includes partners who oversee our audit practice in various regions, sectors, and business units. Each has a role in leading the implementation and monitoring of our audit quality initiatives and overseeing our system of quality control. Members of our Assurance Leadership Team, Market Assurance Leaders, and Market Team Leaders are available to assist audit partners in making key decisions that have quality implications. They also monitor partner assignments and responsibilities, client acceptance and continuance, and reinforce the importance of mandated training courses.

Discussions related to quality occur regularly at firm town hall meetings, webcasts, leadership visits, and through individual coaching. In these discussions, we focus on what we are doing well, where we can continue to make enhancements, and actions we can take to achieve those enhancements.

---

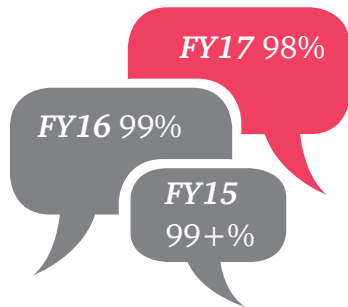
<sup>1</sup> A partner is a certified public accountant (CPA) whereas a principal is not. Only CPAs may sign an audit opinion or perform any other function reserved by law or by the firm solely to CPAs. Partners and principals are alike in most other aspects of the partnership, such as sharing in profits/losses, managing risk, developing our staff, investing in client relationships, and performing services for clients. For purposes of this report, “partner” refers to both partners and principals.

<sup>2</sup> References to *firm*, *our*, and, *we* relate to PricewaterhouseCoopers LLP or PwC US.



We monitor whether our leaders' actions and words effectively convey the importance of quality to the success of our firm. Based on this monitoring, we are confident that our people understand our audit quality objectives.

*Percentage of assurance professionals surveyed who report receiving consistent messages about the importance of audit quality from both local and firm leadership:*



*Percentage of assurance professionals surveyed reporting that they understand the practice's objectives regarding audit quality*



**FY17:** 96%  
**FY16:** 96%  
**FY15:** 97%

## Accountability

Leadership communicates expectations and holds professionals accountable for performing quality audits. These expectations include compliance with audit and risk management policies; timely scoping, planning, and execution; consultation with appropriate specialists; proactive issues management; adherence to independence and compliance requirements, including mandated training; the exercise of professional skepticism; and the appropriate level of review and supervision.

## Partner accountability and compensation

Each partner receives a share of the firm's profits based on his or her level of responsibility, the firm's performance, and the partner's performance. Our audit partners are not evaluated or compensated for selling non-audit services to their audit clients.

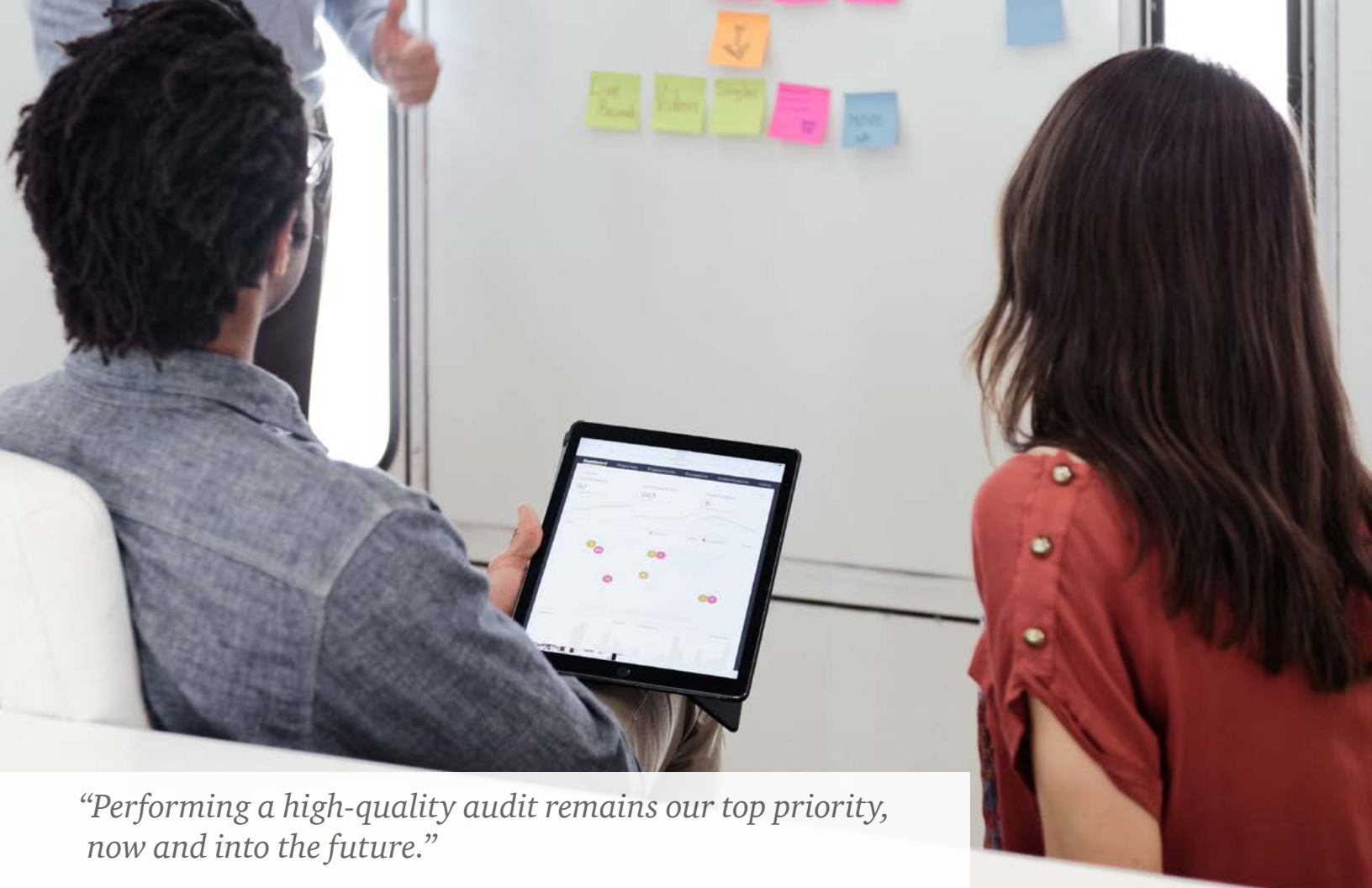
Partners are evaluated based on their contributions to quality, people, teaming, and financial performance. Partner accomplishments are

*At PwC, "audit quality" means that we consistently:*

- comply with auditing standards;
- apply a deep and broad understanding of our clients' business and the financial environment in which they operate;
- use our expertise to identify and resolve issues early; and
- exercise professional skepticism in all aspects of our work.

*Our audit quality principles are achieved through our audit quality practices and mean that we:*

- ask tough questions;
- stay current on professional standards;
- apply an objective and professionally skeptical mindset;
- aspire to be the audit committee's independent "eyes and ears;"
- plan our work in a timely and thorough fashion;
- embrace the supervision and review process as a way to continuously improve;
- recognize our role in the capital markets;
- remain alert for issues that need deeper analysis and speak up; and
- take personal responsibility.



*“Performing a high-quality audit remains our top priority, now and into the future.”*

*—Jorge Milo, National Quality Organization Leader*

measured based on the partner’s relative performance against established goals. A partner’s level of responsibility may increase or decrease as a result of this process. For example, quality-related matters can result in reduced responsibilities and can have a negative financial impact on lead engagement partners, auxiliary partners, quality review partners (QRPs), and specialist support partners (e.g., tax, valuation, actuarial, information technology). When necessary, in order to promptly address identified

quality issues, leadership works with the partner to implement a responsive action plan and monitors its execution and effectiveness.

### **Non-partner professionals**

Individuals are assessed against the dimensions of the PwC Professional framework, which is discussed on page 8. Our non-partner professionals participate in a performance bonus plan that is based, in part, on the achievement of quality goals and objectives.

If our audit quality objectives are not fully met by non-partner professionals at the manager level or above, the professionals must develop a responsive action plan that is reviewed and approved by a partner. Our goal is to provide the support and resources necessary for our professionals to deliver against our audit quality objectives. Over the course of the fiscal year<sup>3</sup>, action plan progress is monitored by the relevant Market Team Leaders.

<sup>3</sup> Our fiscal year ends June 30th each year.

## Ethics, independence, and objectivity

### Ethics

Ethical behavior is the foundation for building trust. We have established a code of conduct and supporting policies that describe expected behaviors. We provide multiple ways for our people to ask questions and obtain policy guidance or voice concerns about possible policy violations, including an anonymous ethics help line.

Protecting client confidentiality and appropriately preserving necessary records are key components of our ethics policies. These policies are included as part of our new-hire training. We reinforce these policies during mandated annual training and in the annual compliance confirmation required of all partners and staff.

### Independence and objectivity

As auditors, we are required to be independent from our audit clients. Independence, in fact and appearance, sets the foundation for us to exercise professional skepticism and arrive objectively at conclusions without being affected by influences that could compromise our professional judgment.

Our independence policy is based on the Code of Ethics for Professional Accountants of the International Ethics Standards Board for Accountants, and is supplemented, as necessary, to comply with the requirements of US standard setters and regulators (e.g., the AICPA, SEC,

and PCAOB). We provide technology-based tools to support our auditors in maintaining their independence, including systems and processes to:

identify the entities requiring independence;

enable assessments and documentation of approval for providing permissible non-audit services;

facilitate the assessment and monitoring of joint business relationships;

initiate independence consultations with our experts;

evaluate, pre-approve, and monitor securities and other financial arrangements held by partners, managers, and others to whom independence rules apply;

automatically record our people's security transactions entered into using certain brokerage firms in the firm's independence system;

assess and document our professionals' annual confirmation of compliance with our independence policies and other compliance topics; and

send engagement independence confirmations and generate the documentation necessary to evidence the confirmation process automatically.

A team of dedicated professionals (14 partners and 232 staff) maintain our independence policies, processes and systems, develop our annual independence training, and serve as a resource for our people when questions arise. In FY17, this team engaged in approximately 29,100 independence-related consultations.

We have disciplinary procedures in place to promote compliance with our independence policies and processes. Independence policies require any independence rule exceptions to be reported to those charged with governance of our clients so that they can be addressed promptly.

### *Partner rotation*

SEC rules require public company lead audit partners and QRPs to rotate off engagements every five years. We also have rotation policies for auxiliary partners, managers, and partners on non-public company audit engagements. Periodically rotating the partners strikes a balance between bringing “fresh eyes” to the audit and maintaining a deep understanding of the client and its operations, supported by team continuity. This drives enhanced objectivity and audit quality. Our practice leaders use systems and processes to manage partner portfolios and rotations on a timely basis, including identifying successor partners who have the skills and capacity to maintain consistent audit quality.

## Considerations in undertaking an audit engagement

The Firm has established protocols that promote consistency in our approach to engagement acceptance and continuance. For the acceptance of new audit clients, our process requires approvals by various levels of risk management and market leadership partners. The extent and level of approvals needed for continuous assessments of existing audit clients depend on the nature of the client and the results of the annual risk assessment. Key to making our decision to accept a new client or continue an audit engagement is whether we have the appropriate resources with the right skills, experience, industry knowledge, and capacity to perform a high-quality audit. We also consider if the audit fees are commensurate with the level of effort needed to perform a quality audit. We only accept and continue to perform those audit engagements for which we believe our audit procedures can satisfactorily address the risk of material financial

statement misstatement. Our client acceptance and continuance procedures identify potential areas of risk and focus on a number of matters, including whether:

the engagement is allowable under professional and regulatory standards and is within our professional competence and capabilities;

key management, board, significant shareholders, and principal owners are people of integrity and good repute;

the entity’s operations are governed by acceptable standards of behavior;

there are any unresolved issues involving independence, conflicts of interest, or relationships with other entities; and

there are any unreasonable timing or resource constraints that would affect our ability to comply with applicable standards.

## Multiple lines of service

Continuing to invest in our non-audit practices—and the expertise they provide—keeps us at the forefront of matters that require deep technical knowledge. With our multiple lines of service, we are more knowledgeable of the risks and challenges that affect our audit clients, including the impact of cybersecurity threats on internal control over financial reporting; valuation processes related to the use of fair value in financial reporting; forensic investigations; complex income tax matters; and information technology innovations.

Additionally, specialized skill sets of non-audit personnel are often instrumental in developing innovative technologies and processes for executing our audit work and are often leveraged as part of the audit. These investments in technology help us attract and retain top talent.

We are aware of the potential risks to our audit practice presented by having multiple lines of service. In that regard, we focus on maintaining audit quality, professional skepticism, objectivity, and transparency regarding non-audit services.

We are focused on maintaining

effective independence protocols and monitoring processes. We also govern the allocation of investment spending to our different businesses.

We only perform non-audit services for audit clients when (1) it is permitted by applicable professional standards, including independence rules and (2) the audit committee agrees—before any services are provided—that such services will not impair our independence.





# Our people

## Human capital strategies

Human capital is critical to our success. We are committed to creating an environment in which we are able to attract, develop, and retain the best and brightest in our profession, and have been recognized by several different organizations for our successes in this area. Our people strategies—including how we recruit and deploy talent, develop skills, identify diverse professional experiences, and provide coaching and feedback—are important to achieving our quality objectives.

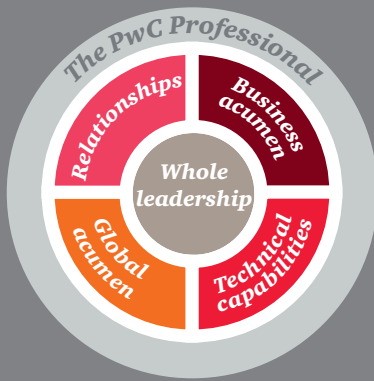
## The PwC Professional

Our career progression framework, “the PwC Professional,” enables us to continue to be a leading professional services firm.

Our objective is to develop a well-rounded professional. The career progression framework is how we develop our people into leaders who possess the capabilities and confidence to produce high-quality work, deliver an efficient and effective experience for our clients, execute our strategy, and support our brand.

Talent acquisition and developing the PwC Professional starts with sourcing the best talent by offering a distinctive value proposition. We have high standards for our people, but in return, we provide

competitive compensation with outstanding employee benefits. We provide world-class career development opportunities and the chance to work with some of the world’s premier organizations. Our talent acquisition strategy is to hire highly-qualified candidates who have diverse backgrounds and skills; possess personal attributes consistent with our firm’s culture; have a questioning mindset and intellectual curiosity; and demonstrate courage and integrity.



Our reputation depends on hiring talented professionals and our reputation for quality enables us to attract the best candidates. Our hiring standards for entry-level and experienced professionals, which include assessing academic records and conducting background checks, mean that our newly-hired professionals are well suited to meet the firm's quality expectations. In FY17, our Assurance practice hired more than 3,000 entry-level staff and 2,600 interns, similar to the prior year. We also hired over 250 experienced professionals. We continue to recruit candidates with science, technology, engineering, and mathematics (STEM) capabilities, as we view these as important skills for the future. In FY17, 13% of our entry-level staff held a STEM degree.

This year, we redesigned the talent selection process. We implemented new technologies that increase the effectiveness of our talent acquisition team, expand access to qualified and diverse talent, and distinguish our brand.

### Professional development

We provide team-based, classroom instructed, and technology-driven training. Throughout our professionals' careers, they are presented with challenging experiences, career development opportunities, and on-the-job coaching.

Becoming a CPA is an important part of our audit professionals' career progression, as it demonstrates

## Number of audit professionals<sup>4</sup> by level

### Partners



### Managers/Senior Managers/Directors/Managing Directors



### Senior Associates



### Associates



### Total



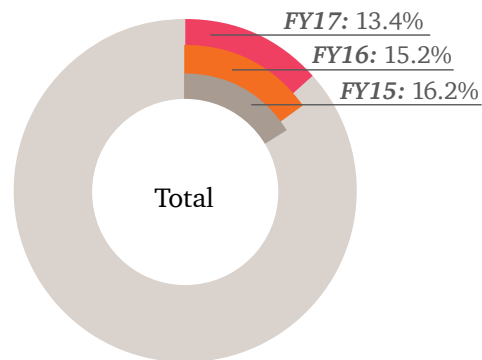
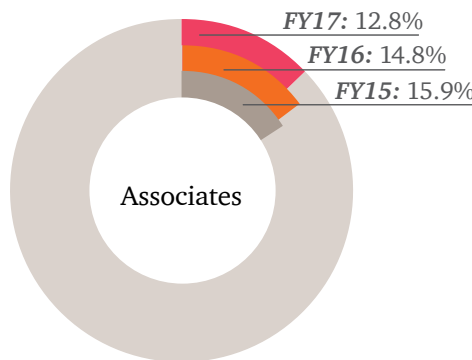
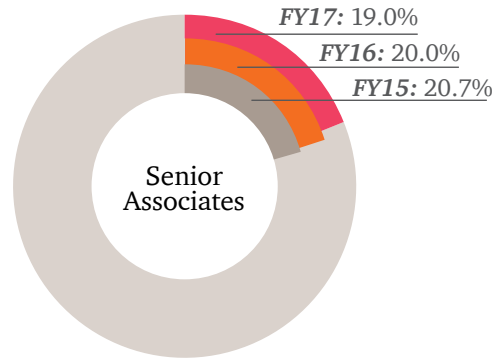
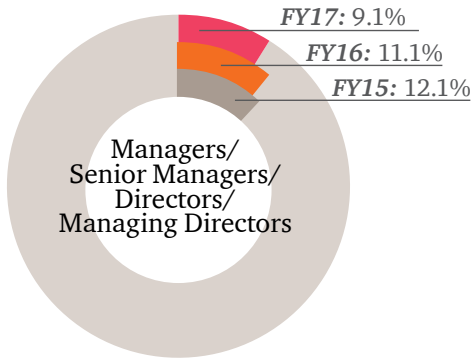
a mastery of core auditing and accounting knowledge. Passing the CPA exam—a significant step toward obtaining the CPA credential—is a prerequisite for promotion to audit senior associate.

In 2017, 10 of the 57 individuals recognized by the AICPA for achieving exceptional results on the CPA exam were from our firm.

We are committed to putting the right people in the right places at the right times. One of the tools we use is TalentLink, our talent management and sourcing platform. This gives us visibility into our people's experiences and interests so that we can efficiently staff client engagements and understand the career aspirations of our people.

4 The use of the term "audit professionals" throughout this document refers to our core audit partners and staff (i.e., specialists, including risk assurance, are excluded).

*Average annual voluntary turnover rate by staff level*



**Retention**

Turnover rates in the public accounting profession are generally high because as accounting standards and regulations change, accountants—specifically our staff—are in high demand. Accordingly, retaining our highly talented professionals remains a priority and is important to achieving sustained audit quality.

We are dedicated to creating an environment that enables us to deliver the PwC Experience by leveraging technology to facilitate the way we work together, improving utilization, reducing overtime and taking the “busy” out of “busy season” through improved phasing of audit work throughout the year.

Providing our people with an ability to meet their professional and personal obligations is an important component of our retention strategy.

In addition to our formal flexibility options (e.g., reduced schedules, remote working arrangements), flexibility discussions are part of our culture. For example, we encourage teams to develop flexibility plans at the onset of an engagement and identify “flexibility champions” within each team to keep them on track, particularly during peak periods of the audit. This energizes our engagement teams’ passion for and commitment to delivering quality; creates a more rewarding experience; and increases desire to remain with the firm longer.



Our people initiatives have led to a reduction in average annual hours at all levels and over the last two years, contributed to a nearly 20% reduction in hours worked in excess of 40 per week and a three percentage point decrease in voluntary turnover.

Our real-time recognition program empowers partners and staff to recognize individuals for their contributions and impact. Further, we encourage our staff to participate in corporate responsibility efforts, such as our Earn Your Future® program, pro-bono work for non-profit organizations, volunteering, or other forms of giving. These efforts positively impact local communities and support retention of our purpose-driven staff. For example, the turnover rate for our core assurance staff who participate in corporate responsibility-related activities is five percentage points lower than for those who do not participate.

We periodically measure the pride, advocacy, commitment, and overall satisfaction of our people. We call this measurement our Engagement Index. We believe it captures the impact of our people initiatives.

### Engagement Index (US Assurance):



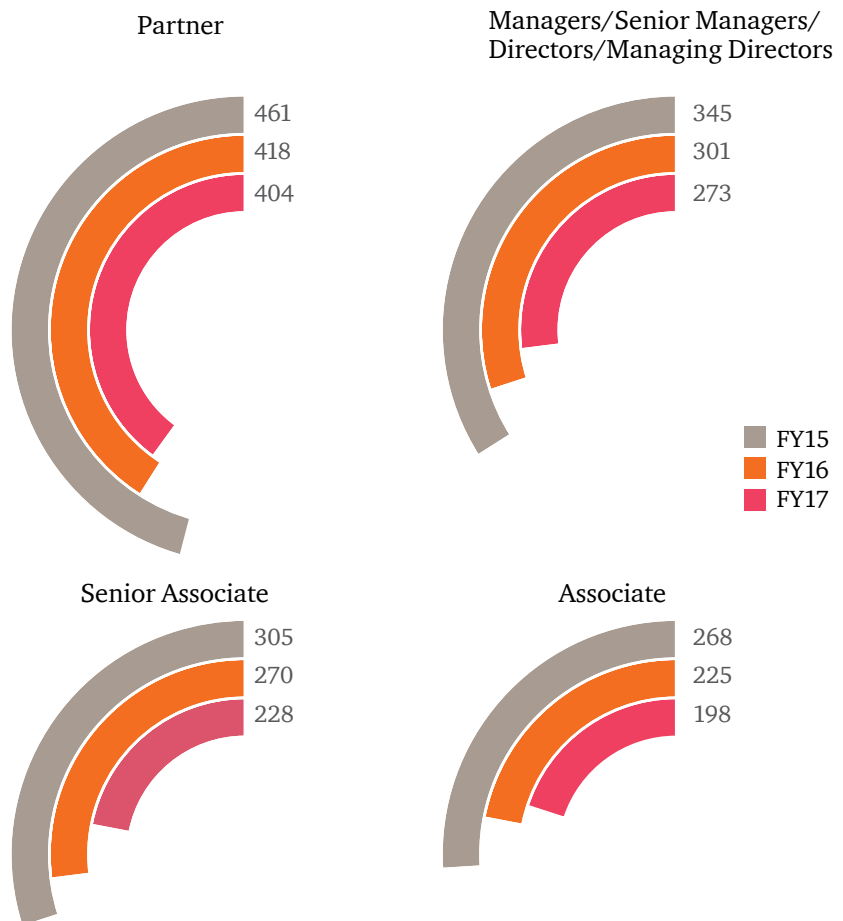
**FY17:** 80%

**FY16:** 85%

**FY15:** 83%

Our Assurance Engagement Index decreased 5 percentage points from last year. We believe this indicates a need to better communicate internal policy decisions in a more timely manner (e.g., changes to health plans and compensation and organizational policies).

### Average annual hours worked in excess of 40 hours per week\* by level



\*The benchmark for calculating the average annual hours worked in excess of 40 hours per week was 2,088, 2,096, and 2,088 for FY15, FY16, and FY17, respectively.

*“At PwC, we understand that we won’t thrive as an organization by simply adapting to change—we need people to DRIVE change—throughout our profession and for our clients.”*

—*Maria Castañón Moats, US Assurance Leader*

Today, women and minorities comprise 45% and 33% of our firm, respectively.



## Our diversity and inclusion strategy

At PwC, we respect and value differences. We know that when people from different backgrounds and with different points of view work together, we create the most value—for our clients, our people, and society.

### *An integrated approach*

PwC has been on a journey to promote diversity and sustain an inclusive environment. Today, women and minorities comprise 45% and 33% of our firm, respectively.

To better align our programs and initiatives with our people and business strategies, our diversity priorities are incorporated into our organization at many levels, starting with our core values of caring and working together. These values guide us to recognize the contributions of each individual and develop a workplace integrated with a range of people, perspectives, and ideas.

Our chief diversity and inclusion officer is a member of the US Leadership Team. Our leadership development programs help leaders, managers, and staff build cultural dexterity within their teams. The PwC Professional framework emphasizes personal accountability and promotes the development of global acumen, a mindset that transcends geographic and cultural boundaries. Our holistic approach creates a supportive and engaging environment in which our professionals can thrive, and focuses on three main areas:

- **Early success:** Our Start internship allows high-performing minorities who are going into their sophomore, junior, or senior years of college to learn more about our firm—such as participating in client service shadowing experiences—while gaining the necessary skills needed for the business world. It also prepares them for our client service internship. We also assist new hires through programs like Vanguard—a year-long program designed to support the success of Black/African-American new hires.
- **Leadership development:** We continue our support by offering a variety of targeted leadership development programs. The Diamond program provides coaching and sponsorship to top-performing minority senior managers and directors. Accelerate, another leadership development program, is designed for Asian/Pacific Islander experienced associates. Our Breakthrough Leadership program coaches experienced higher-performing women, and Select Senior works to develop our higher-performing diverse senior associates.
- **Inclusion:** We offer our people opportunities to raise their diversity awareness and increase their cultural skills through a variety of programs, including:
  - Our “Blind Spots” program is required for all new hires and promotees and available to all our people, and helps individuals gain awareness of unconscious biases and their consequences.
  - We continued a series of Color Brave™ conversations about race that has helped break down barriers to employees bringing their best selves to work.
  - We engage our people through employee networking groups for Black/African-Americans, Asians/Pacific Islanders, Latinos/Hispanics, women, working parents, veterans, people with disabilities, and LGBT professionals.

As a result of our efforts to promote diversity and sustain an inclusive environment, the diversity of our partners has gone from 16% women

---

*“When you include a diversity of minds in the decision-making process, you inevitably have a better and stronger result.”*

*Tim Ryan, US Chairman and Senior Partner*

---

and 6% minorities in 2007 to 21% women and 13% minorities in 2017. Another testament of our progress is our 2017 new partner class—the most diverse in our history—with 45% women and minorities.

While we are proud of the progress we have made, there is still more we want to do to enhance our inclusive culture so that we can continue to attract talented people who have unique skills, experiences, and ambitions. For example, as a global champion of the United Nations HeForShe gender equality movement and, most recently, a founding signatory of the [CEO Action For Diversity & Inclusion™](#), we have demonstrated our commitment to being a place where everyone has an opportunity to reach their full potential. More than 300 CEOs have signed this corporate pledge, which includes committing to three initial goals: to create or continue to make our workplaces trusting places for dialogue about diversity and inclusion, to offer or expand unconscious bias education, and to share best practices and practices that aren't working so others can learn from them. Being part of this network has fostered dialogue about diversity strategies with executives and boards of directors.

PwC now provides free online access to its blind spots education materials to help other companies facilitate more open and honest conversations. Blind spots training can be found at [www.pwc.com/us/blindspots](http://www.pwc.com/us/blindspots).

To learn more about PwC's diversity and inclusion strategy, as well as the awards and recognition we have received for our achievements in this area, please visit [www.pwc.com/diversity](http://www.pwc.com/diversity).

## Learning and development

The composition of our audit teams provides our less experienced professionals the opportunity to work with more seasoned professionals, which promotes meaningful on-the-job training. Judgment is honed by witnessing how seasoned auditors approach issue identification, management, and resolution.

### Partners' average years of experience at our firm:



FY17: 23  
 FY16: 23  
 FY15: 23

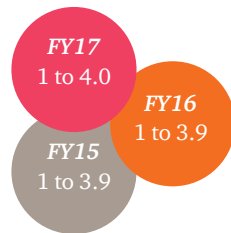
The significant amount of learning that occurs through on-the-job supervision, review, and mentoring is supplemented through participation in rigorous, firm-developed learning programs. The effectiveness of our formal learning courses is enhanced by our national Assurance Learning Team. This team is comprised of experienced PwC audit professionals dedicated to developing course content and instructing associates and senior associates. Chief auditors (as defined on page 18) also play an important role sharing information and experience with partners and managers. We continually update and redesign our training curriculum based on feedback obtained from our:

- internal inspections process;
- observations from the PCAOB and peer reviews;
- observations from our Chief Auditor Network; and
- surveys, focus groups, and post-course learning assessments.

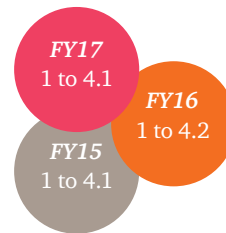
### We believe our staffing ratios provide opportunities for our less experienced staff to learn from experienced professionals.

Leverage ratio of audit-related hours for audit team members:

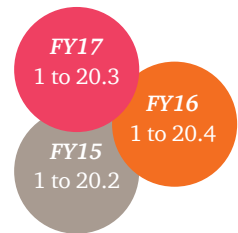
Partner to Manager\*



Manager\* to Staff

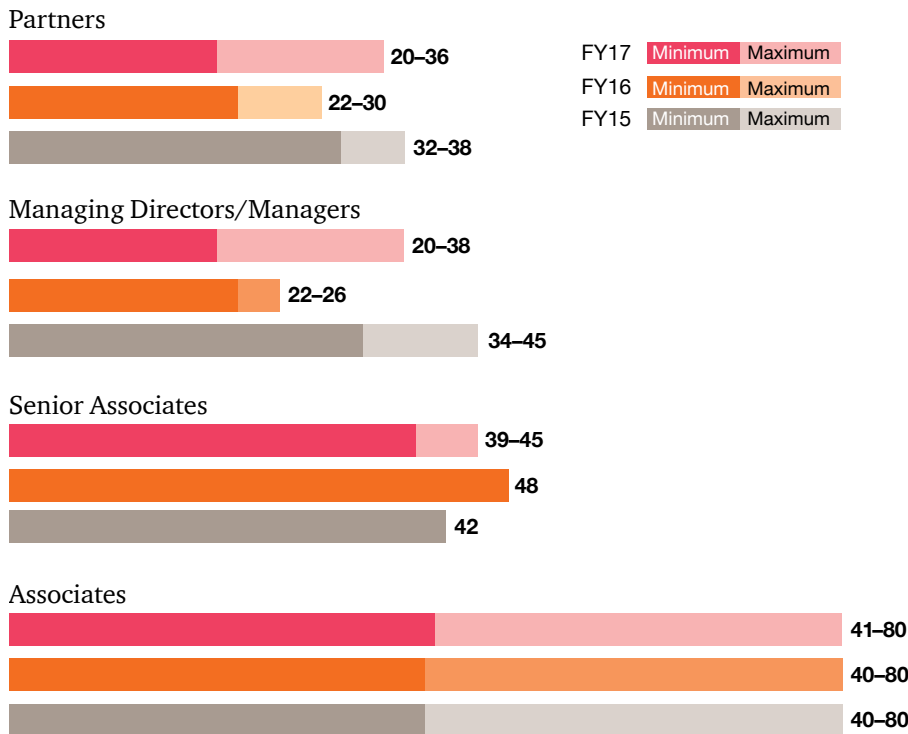


Partner to Staff



\*In this graphic, the term "manager" includes managers, senior managers, directors, and managing directors

**Number of hours of auditing and accounting training mandated by PwC annually for each level\***



\* Mandated auditing and accounting training hours can vary based on years of experience at each level.

In FY17, we entered into a joint business arrangement with Coursera and redesigned our firm mandated courses to include the use of digital simulation-based elements to enhance effectiveness. We require our audit professionals, at all levels, to attend training courses that integrate auditing and accounting concepts for a more effective learning experience. Our managers and partners also attend industry-specific training related to new accounting standards, when applicable. In addition, we offer our professionals non-technical training on topics such as project management, issues management, and business communications. The number of hours of auditing and accounting training mandated annually and total annual training hours completed for each professional level can vary from year-

to-year based on a variety of factors including, but not limited to, the volume and nature of new accounting and auditing standards. The number of hours of mandated training is determined by the Assurance Learning Team and approved by assurance leadership. On average, our professionals complete more training than state accountancy boards require to maintain CPA licensure.

**Average training hours completed per audit professional:**



**FY17: 82**

**FY16: 99**

**FY15: 101**

Attendance at mandated training courses is an important component of an individual's performance assessment and is monitored by Market Team Leaders. Non-attendance at mandated training courses, including the independence and ethics training discussed on page 5, or failure to achieve the mandated number of hours of auditing and accounting training can impact an audit professional's performance evaluation and individual compensation. All mandated auditing and accounting training courses include a learning assessment that requires a passing grade to test knowledge gained. The results of these tests also provide participants with a better understanding of where they can focus additional attention.

*“We’re committed to creating and sustaining a great firm—one where we can attract, develop, and promote the best people.”*

*—Maria Castañón Moats, US Assurance Leader*





# Our approach

*At PwC, we believe that performing audits in accordance with professional standards is an important way that we fulfill our purpose to build trust in society and solve important problems. Each year we issue audit reports regarding thousands of public and private companies. Before PwC issues its opinion, we conduct an audit following applicable auditing standards in order to obtain reasonable assurance regarding whether the financial statements are presented fairly, in all material respects. Although reasonable assurance is a high level of assurance, it is not a guarantee. An audit involves examining the underlying audit evidence, including information and reports provided by the company, on a test basis. We also test, rely and, for many public registrants, opine on a company's internal control over financial reporting, which due to its inherent limitations may not prevent or detect misstatements. We are proud of the important role that audit opinions play in the capital markets, and how they help us to fulfill our broader purpose as a firm.*

## Audit methodology and processes

We continue to innovate the audit process by standardizing, simplifying, and automating our work where appropriate to promote doing the right work at the right time. This approach supports consistency in the execution of our procedures, promotes adherence to professional auditing standards, and improves the experience for our clients through earlier identification and resolution of matters.

Foundational to our methodology is the assessment of risk. Financial reporting risks evolve over time. Our risk assessment begins in the planning phase of the audit. After we gain an understanding of the client's end-to-end business processes and consider the impact of changing economic conditions, we identify and evaluate the risks within the processes and develop audit programs responsive to the client's specific facts and circumstances. The risk assessment process continues through the issuance of our audit report. We reinforce the importance of appropriate planning and phasing of audit work by setting realistic audit planning deadlines, and timely engagement of audit partners and managers throughout the process. This facilitates the appropriate consideration of audit risk and the related response.

In the interest of continuous improvement, over the past year we have:

enhanced learning and development programs by incorporating simulation based modules

introduced further enhancements to the latest version of our global audit software, Aura (see page 20 for further discussion)

utilized our Market Team Transformation Leaders to drive process improvements and use of our tools and technology

continued to develop industry-specific audit programs to improve the consistency of how we address certain industry-specific risks;

expanded our data auditing tools (see page 20 for further discussion)

continued to increase leverage of our Service Delivery Centers and additional resource pools (see page 17 for further discussion)

In addition to these efforts, we continue to enhance our methodology, training programs, and audit performance and documentation tools to respond to changes in risk. Changes can result from new accounting and auditing standards, such as the new revenue, leases and credit loss standards, and the results of internal and external inspections, including the related analyses of quality drivers. For example, over the past year, we introduced our business combinations enhanced audit planning and documentation tools and templates to provide increased scoping capabilities and streamline the documentation process. We also introduced enhanced functionality in Aura to capture and centralize our audit documentation related to system-generated information used by (1) management in the execution of financial reporting controls we test and (2) our engagement teams when performing substantive audit procedures.

### Audit committee communications

Audit committee oversight of auditors is another key element of audit quality. Through timely, meaningful exchanges, we obtain the audit

committee’s perspectives and fulfill our professional responsibilities to communicate certain items to the audit committee. Required communications include discussions about our independence, our role, and the roles of management and the audit committee, among others. For public company audits, our communications occur at least quarterly. Examples of other topics we discuss include, but are not limited to:

- perspectives on management’s plans to adopt a new accounting standard,
- views on risks to the company (e.g., financial, business, operational),
- perspectives on the quality of management and the tone at the top,
- the resources to be allocated to the audit,
- the appropriateness of audit fees relative to the work to be performed,
- the potential effects of proposed non-audit services on independence, and
- PCAOB inspection results and themes.

## Resource management

We continue to enhance the quality and efficiency of our audits. These efforts have helped reduce our full-year utilization by three percentage points and utilization for our peak period of January and February by three and four percentage points, respectively, over the prior year. The reduction in utilization contributed to a continued decline in voluntary turnover, which is further discussed on page 10.

Our Global Delivery Model leverages PwC Service Delivery Centers (SDCs) to perform standardized audit and administrative procedures. Utilization of the SDCs can allow engagement teams to prioritize the more judgmental aspects of the audit, thereby enhancing audit quality and improving project management and morale.

### Percentage of total audit hours performed by Service Delivery Centers:



FY17: 9.0%

FY16: 7.6%

FY15: 5.8%

*“To help our people do the right work at the right time, we’re focused on our processes and approaches. We are continuing to make progress in standardizing, simplifying and automating our audit work.”*

—Maria Castañón Moats, US Assurance Leader

## Consultation process and use of specialists

As part of our collaborative culture, engagement teams have access to the firm’s quality support network. This network includes our National Office, Chief Auditor Network, and Risk Management Partners.

### Ratio of partners serving in technical support roles to the total number of audit partners



**FY17:** 1 to 6.5

**FY16:** 1 to 6.1

**FY15:** 1 to 6.1

### National Office

Our National Office includes technical specialists in accounting, auditing, and SEC matters. The National Office plays a vital role in keeping our firm policies and guidance current. Through consultations, presentations, client interactions, publications, podcasts, videos, and webcasts, the National Office keeps our audit teams, clients, and other stakeholders informed of standard-setting activity and regulatory matters that may impact the audit, audit quality, or financial reporting.

Our audit policies identify matters that require National Office consultation. Additionally, no partner or staff member is expected to “go it alone.” Audit teams are encouraged to consult based on engagement-specific facts and circumstances. In

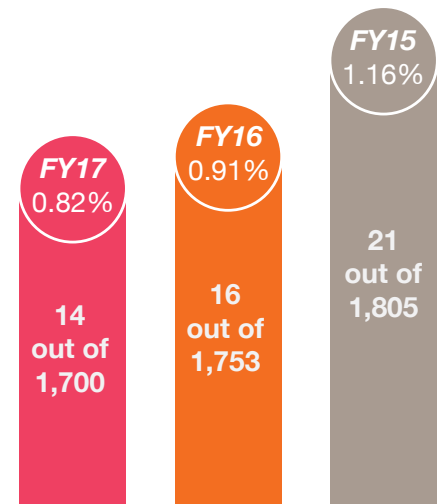
the event an audit partner initially has a different viewpoint than our National Office, a resolution process provides guidance for elevating the discussion until agreement can be reached.

### Risk Management

Our Risk Management network includes experienced audit partners who serve in national, regional, and local roles. Regional and local Risk Management partners devote a portion of their time to risk management activities, while continuing to manage their own engagements. National Risk Management professionals are generally dedicated on a full-time basis and are responsible for the design, development, and execution of the firm’s risk management policies.

Risk Management partners support audit teams in assessing risks (such as whether to undertake or continue an audit engagement) and applying the firm’s risk management policies. Audit teams are required to consult with a Risk Management partner on specific issues (e.g., principal auditor considerations, going concern matters, and misstatement evaluations, including assessments performed by management and audit committees when potential errors are identified in previously issued financial statements). In addition to required consultations, audit teams are encouraged to consult with Risk Management whenever they believe they could benefit from Risk Management partner insights.

### Number of annual restatements as a percentage of issuer audit clients<sup>5</sup>



### Chief Auditor Network

Our Chief Auditor Network comprises partners and professionals who provide local, regional, and sector support to audit teams in the field. Chief auditors help audit teams design effective and efficient audit approaches and reinforce key learning points from audit training and guidance developed by our National Office. Our chief auditors contribute to market and industry group meetings focused on audit quality topics and serve as instructors for many of our audit-related training courses. Chief auditors provide advice on auditing matters through review of certain aspects of selected audit engagements before those audits are completed. Through these activities, the Chief Auditor Network is able to provide leaders with insights on overall audit quality trends and progress.

<sup>5</sup> For purposes of this report, issuer audit clients comprise SEC registrants and mutual funds.



Our engagement teams also draw upon firm specialists (e.g., valuation, tax, information technology, and other technical specialists) in a variety of accounting and auditing areas. Client-specifics drive the number of specialist hours for an audit.

**Percentage of total audit engagement hours provided by specialists**



**FY17:** 11.5%  
**FY16:** 11.6%  
**FY15:** 11.7%

**Quality Review Partner**

Quality Review Partners are a component of our quality control system. Partners serving in these roles must have the requisite technical knowledge, experience, and time to perform the role effectively. We also utilize QRP assistants. QRP assistants are generally partners with one to five years of tenure as a partner. All QRPs and QRP assistants are required to take training before assuming their role.

QRPs are involved in the most important aspects of the audit, including reviewing the audit plan, considering the firm’s independence, discussing the significant risks of material financial statement misstatement and our responses to those risks, and reviewing certain accounting, auditing, and financial reporting and disclosure matters.

**Global network**

PwC is a member of PricewaterhouseCoopers International Limited (PwCIL), a UK private company limited by guarantee. PwC is the brand under which the member firms of PwCIL provide professional services.<sup>6</sup> Members of the PwC Network share knowledge, skills, and resources. This membership facilitates PwC firms working together to provide high-quality services on a global scale to international and local clients, while retaining the advantages of being local businesses, including being knowledgeable about local laws, regulations, standards, and practices.

**Quality across the network**

High-quality audits across the PwC Network are vital to the US firm’s brand. Our goal is to help other PwC member firms consistently perform high-quality audits. We continue to assist member firms in enhancing their quality-focused infrastructure, including helping them enhance their own quality processes by providing annual update trainings in certain territories. We are also active leaders on a task force of member firms that shares learnings and best practices on quality.

Each member firm is responsible for monitoring its own quality control system, including reviewing the quality of its management-level controls and the audit work it has performed. A PwC Network led team inspects member firms’ reviews of their quality control systems. When areas needing improvement are identified in these reviews, the member firm prepares a remediation plan and the PwC Network monitors its implementation.

Each PwC Network member firm is responsible for completing inspections to assess whether engagements selected for review were performed in compliance with applicable professional standards and policies which facilitates the member firm’s enhancements to quality. We continually refine how we use the work of non-US PwC Network firms so that all components of our audits meet US standards (when applicable) and satisfy our own quality expectations.

<sup>6</sup> Please see [www.pwc.com/structure](http://www.pwc.com/structure) for further details.

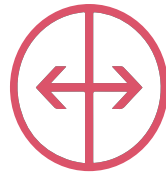
# Our technology

As a PwC Network, we are making significant investments in technology to provide our teams with tools to support them throughout the audit. These tools help teams to identify and address risks and issues earlier in the audit process, as well as improve project management and the phasing of our work.



## Aura

Aura, PwC's global audit platform, is used by over 100,000 auditors worldwide, driving quality and consistency on a global basis. Connecting the elements of our audits seamlessly, Aura enables sequential and intuitive audit plan development. It enables risk assessment through each phase of the audit, leveraging embedded industry content that drives consistency in execution. New functionality introduced this year assists teams in documenting and evaluating IT dependencies, further driving quality and standardization. Additionally, new project management features were introduced, providing enhanced personalized dashboards for timely execution and review.



## Connect

Connect is our collaborative workflow tool used to share and track information between clients and PwC teams. Clients and PwC teams can request, access, and exchange audit documents and deliverables, and review the status of information requests securely at any time from a smartphone, tablet, or PC.



## Halo/data auditing

Using our data auditing strategy, we continue to simplify the audit through the use of technology. Our data extraction and visualization capabilities provide engagement teams with the tools to extract and analyze large volumes of data, focus on potentially higher-risk transactions, enhance audit quality, and provide data-driven insights to our clients.

Halo, our globally-branded data extraction, visualization, and auditing platform, is designed to enhance our risk assessment process and facilitate automated testing and data validation in a number of audit areas.

Halo for Journals is primarily designed to help our audit teams analyze journal entry data and to identify journal entries to test in order to address the risk of fraud.

Audit360 is our data auditing tool designed specifically for use on asset management industry clients. It extracts and processes data and facilitates automated testing of certain accounts and aspects of financial statement presentation through direct data feeds from the clients' service providers or through reports uploaded by engagement teams. Audit360 was used in FY17 for over 3,000 funds across 75 clients.

Halo for Investments is new this year and helps audit teams analyze and visualize investment portfolio data and price testing results.

PwC Extract, our proprietary data extraction tool, is also new this year and standardizes the way we request, extract, and protect client data.

---

### Percentage of audit clients for which Halo for Journals is utilized



**FY17:** 59%

**FY16:** 37%



*“The ability to process and interrogate vast amounts of data is helping automate the audit in ways that were unimaginable a decade ago. This in turn is changing how, where, and when our work gets done.”*

*—Maria Castañón Moats, US Assurance Leader*

## Looking to the future

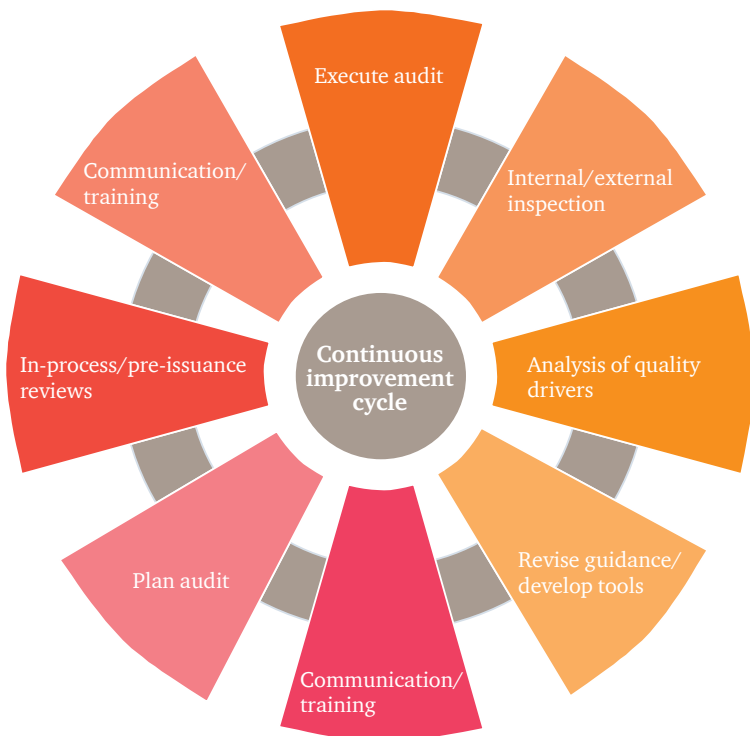
We will continue to make investments in our tools and technology. These include continued investments in Aura, Connect, and Halo/data auditing. We also continue to pilot several technology solutions that streamline the acquisition of client data and improve the ability to analyze data at the transactional level. Additionally, we continue to develop tools to optimize and automate additional audit activities

that will further standardize how we execute and document our audit work. Our investments remain focused on audit quality, driving efficiencies, and improving the experience for our clients.

# Our monitoring

## Continuous improvement cycle

One of the drivers of quality is our ability to identify opportunities for enhancement and quickly respond. The graphic below illustrates our continuous improvement process. We have used pre-issuance reviews and our internal inspections to identify opportunities to enhance quality. After performing an analysis to identify what may have contributed to inspection comments, we develop appropriate actions, such as expanding guidance, developing new or enhanced tools, or implementing additional training.



## Pre-issuance reviews

One of the ways we monitor quality is by reviewing audit work on certain audit engagements prior to the issuance of our audit reports. Our Chief Auditor Network plays a significant role in the completion of these reviews, and each year we reassess the scope and areas of focus of these reviews, taking into consideration recent inspection results and the involvement of Chief Auditors in other engagement team support activities. For example, during FY17, our Chief Auditors executed a pre-issuance review program that targeted the planned audit approach for at least one significant accounting estimate on more than 100 audit engagements. Additionally, our Inspections Group annually performs targeted pre-issuance reviews of the planned audit approach and the execution of audit procedures for 40-50 audit engagements.

Our pre-issuance reviews provide insight into ways to improve the consistent application of our firm's methodology and tools. The scope of these reviews is primarily focused on the implementation of new standards and policies, audit methodology enhancements, and matters noted during previous inspections cycles. These reviews also provide engagement teams with timely feedback, which can be incorporated into their audit prior to the completion of fieldwork.

## Internal inspections

During the inspections process, reviewers evaluate the audit engagement team’s compliance with professional standards and firm policies. The reviews focus on the sufficiency of audit evidence and related judgments that support the engagement team’s conclusions.

Under the firm’s internal inspection program, audit engagement partners are generally selected for inspection at least once every four years. Certain of their engagements are selected based on a variety of factors. Overall, the selection process results in a sample of audit engagements that is representative of our audit practice (e.g., sector, geography, size) and meets or exceeds the requirements set forth in the applicable quality control standards.

### Number of issuer audit engagements subject to internal inspections



2017: 137<sup>7</sup>  
 2016: 144<sup>8</sup>  
 2015: 160

The Inspections Group has oversight and ownership over all aspects of the internal inspections program, including its design and execution. The group is comprised of experienced audit professionals

dedicated to monitoring sustained audit quality, driving consistency in our inspections process, and delivering insights into areas for continued focus. This group, along with support from Assurance client-service personnel with relevant industry or technical expertise (e.g., tax, valuation, actuarial, systems), executes the annual inspections. Client-service personnel involved with inspections are our higher performing resources, including near-term partner candidates, senior managers and directors nominated by Market Assurance Leaders, as well as Partners nominated by Sector Assurance Leaders. In the 2017 internal inspections of 2016 audit engagements, approximately 800 partners and professional staff will participate as reviewers.

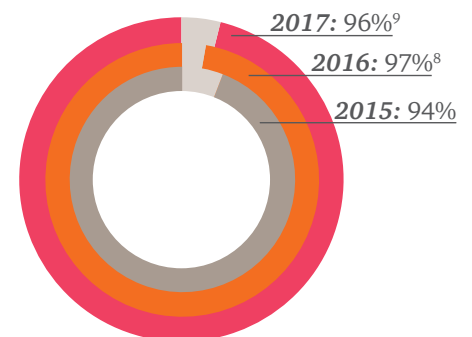
The Inspections Group communicates overall inspections observations and results to the Assurance practice. Further, the Inspections Group works with the Chief Auditor Network, Auditing Services Methods & Tools, Learning and Development, and firm leadership to determine if additional guidance or training, audit methodology modifications, or targeted messaging from leadership is appropriate to sustain and improve audit quality.

Although our 2017 inspection cycle is not complete, based on the results analyzed thus far, we continue to focus on specific aspects of:

- substantive and control testing over revenue;
- evaluation of the design and operating effectiveness of controls;
- auditing of estimates;
- testing of journal entries; and
- complying with independence pre-approval and documentation processes and report issuance policies.

We consider a number of quality inputs in assessing the ongoing effectiveness of the Firm’s system of quality control, including internal and external inspection results. There are inherent differences in the methods of selecting audits for internal and external inspection; however, we analyze both internal and external inspections.

### Compliance rate of issuer audit engagements selected for internal inspection:



7 The number of issuer audit engagements for 2017 includes inspections completed as of August 31, 2017 and inspections expected to be completed during the remainder of the 2017 inspection cycle. Our internal inspections typically take place from March to September.

8 2016 amount was revised due to additional inspections performed after the prior year report was released.

9 The 2017 compliance rate of issuer audit engagements selected for internal inspection is for internal inspections completed as of August 31, 2017.



The Inspections Group also annually evaluates the Firm’s system of quality control over our audit practice. Our quality control system addresses: (1) leadership’s responsibility related to their quality roles, (2) relevant ethical requirements, (3) considerations in undertaking an audit engagement, (4) human capital needs, (5) engagement performance, and (6) our process for monitoring the effectiveness of our quality control policies and procedures. Our system of quality control is also subject to annual review by professionals from the PwC Network. Our most recent annual evaluation confirmed that our system of quality control over our audit practice is designed appropriately and functioning effectively.

## External inspections

PCAOB inspections of our public company audit practice provide a data point for audit quality and represent an important check on our internal monitoring and assessment processes.

The PCAOB reviews a relatively small percentage of our issuer audit clients annually, using a largely risk-based approach. This risk-based approach is designed to target particularly complex audit areas, industries, and clients. In accordance with the Sarbanes-Oxley Act of 2002 (the Act), the PCAOB’s inspection report includes public and nonpublic portions. The public portion of the inspection report contains an overview of the inspections procedures and observations on the engagements inspected. The nonpublic portion contains observations and criticisms about a firm’s audit performance and system

of quality control. The Act mandates that the nonpublic portion will not be made public if a firm addresses the quality control observations to the PCAOB’s satisfaction within 12 months of the date of the inspection report. The most recent inspection report on our audit practice is dated August 10, 2016 (the “2015 Inspection Report”), and describes the results of the PCAOB’s 2015 inspection of 55 (or approximately 3%) of our 2014 year-end public company audits

### *Part I of the PCAOB Report*

Part I of our 2015 Inspection Report covers inspections of selected 2014 year-end audits. Partly in response to that report, we continue to focus on the following areas.

- Auditing internal control over financial reporting, specifically the design and operating effectiveness testing of controls involving management review of financial information or accounting analyses.
- Sufficiency of evaluation and corroboration of management’s key assumptions, including information that may contradict those assumptions or related management judgments, and testing of key data inputs used in impairment assessments and business combination valuations.

### *Part II of the PCAOB Report*

Part II of our 2015 Inspection Report is nonpublic and reflects observations and criticisms identified during the PCAOB’s review of certain practices, policies, and processes related to our system of quality control, including observations developed from the

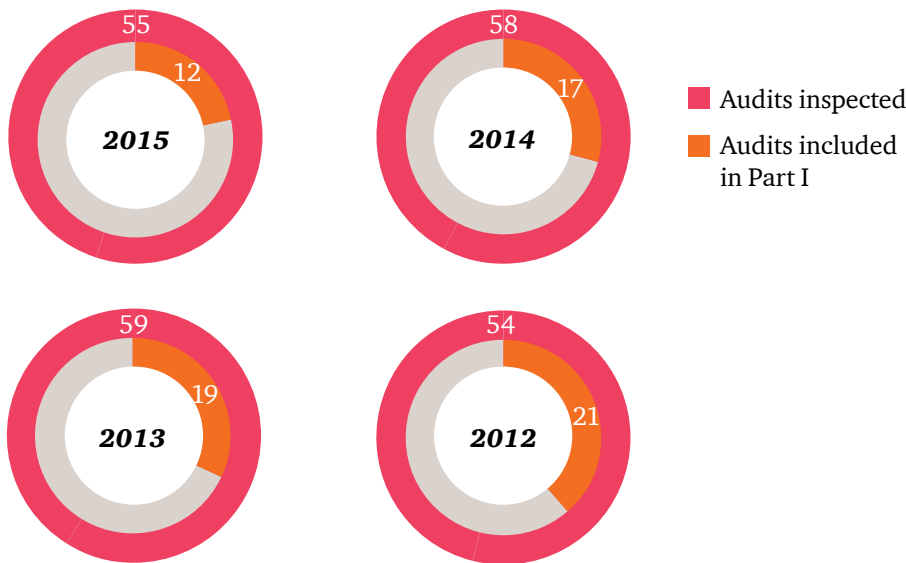
engagement-specific findings reported in Part I. Areas of public accounting firm quality control considered by the PCAOB in Part II generally focus on the following areas.

- Management structure and processes, including the tone at the top
- Practices for partner management, including allocation of partner resources and partner evaluation, compensation, admission, and disciplinary actions
- Policies and procedures for considering and addressing the risks involved in accepting and retaining clients, including the application of a firm’s risk-rating system
- Processes related to a firm’s use of audit work that its foreign affiliates perform on the foreign operations of a firm’s US issuer audit clients
- Processes for monitoring audit performance, including processes for identifying and assessing indicators of deficiencies in audit performance, independence policies and procedures, and processes for responding to weaknesses in quality control

During FY17, the PCAOB informed us that it is satisfied with how we addressed observations contained in Part II of our 2014 inspection report (which covered our 2013 year-end audits). The PCAOB has not yet made a determination as to the sufficiency of our actions in response to the nonpublic portions of our 2015 Inspection Report, for which the 12-month remediation period ended on August 9, 2017.

---

## Number of PCAOB-inspected audits included in Part I



## Analyses of quality drivers

We perform analyses of audits with and without deficiencies identified through internal and external inspections. A team of reviewers that is independent from the engagement team identifies and considers factors relevant to technical knowledge, supervision and review, professional skepticism, engagement resources, and training, among others. These potential causal factors are identified by evaluating engagement information, performing interviews, and reviewing audit working papers, as appropriate.

We compare and contrast the data for audits with and without deficiencies to identify whether certain factors appear to correlate to audit quality in these audits. Examples of this data include the hours incurred on the

audit, whether key engagement team members are in the same geography as the client, the number of years that key engagement team members have been on the engagement in certain roles, the number of other audits that engagement partners are involved in, whether the engagement was subject to a pre-issuance review, and the timing of when the audit work was planned and performed.

Our goal is to understand how quality audits may differ from those with deficiencies, and to use these observations to identify enhancements that may be useful to implement across the practice. We believe these analyses contribute to our quality controls.

# Stakeholder engagement

The mission of our Governance Insights Center (the “Center”) is to share perspectives with directors about governance matters that will help them to effectively execute their oversight roles and to enhance the governance and financial reporting acumen of members of the investment community. While the Center’s work encompasses various governance activities, it places a significant focus on the core responsibilities of the audit committee, because the audit committee has the primary responsibility for a company’s financial statements and oversight of the external auditor.

The Center is comprised of a team of dedicated professionals who provide directors with in-person trainings, webcasts, videos, and publications that address relevant topics to enhance their skillsets and technical knowledge. Over the past year, we held three corporate director events with approximately 250 directors; presented at more than 300 meetings with clients or other events; and issued publications on risk oversight, deals oversight, audit committee effectiveness, board composition and the results of our annual survey of corporate directors, among others. The Audit Committee Effectiveness Series publications provide perspectives on important governance matters, such as fraud deterrence, forward-looking

guidance, getting the most from internal audit, financial reporting oversight, non-GAAP measures, third-party risks, and cybersecurity.

Our interactions with the investment community allow us to hear stakeholders’ perspectives on financial reporting matters, utilize their insights to help inform our points of view, and share perspectives with them about new financial reporting matters and accounting standards. Our mission is to add value by sharing PwC’s insights and educational materials with a broad cross section of market participants, which includes asset managers; pension, mutual and hedge fund managers; buy-side, sell-side, and credit analysts; governance professionals, and others.

During FY17, we shared our insights with the investment community on some of the most complex and pressing issues of the day, including cybersecurity, macroeconomic megatrends, corporate governance issues and trends, revenue recognition and other emerging accounting standards, non-GAAP financial measures, and income tax reform. We also held eight meetings with industry-focused investors and our annual cross-industry conference for investors, analysts, and other investment community participants. We also supported the US Corporate Reporting User’s



Forum (a discussion group of analysts and investors) and its first hosted event, a panel discussion on non-GAAP financial measures. Further, we encouraged investors and analysts to actively participate in the standard setting process, and nominated individuals to serve on various committees and task forces.

Through these events and efforts we gained a better understanding of the critical issues facing companies, directors, audit committees, and the investment community. This work also gives us an opportunity to enhance the investment community's understanding of the role of the auditor.

## Professional and regulatory

A strong audit profession facilitates confidence in the capital markets. The execution of high-quality, independent audits is an important component in building that confidence. To fully earn that confidence—and to remain relevant to our stakeholders—we must react to a dynamic environment, which includes an evolving regulatory landscape.

Actions taken by regulators in one part of the world continue to influence the views and behaviors of regulators in other parts of the world. The auditing profession and auditing standards are at the heart of this—for example, the auditor's reporting model, auditor transparency, and audit quality indicators are just three examples that have been debated in the US and abroad.

We have played an active role in these debates, both as an individual firm and in collaboration with others in the profession by working with the Center for Audit Quality (CAQ). Our US Chairman and Senior Partner, Tim Ryan, represents PwC on the CAQ's Governing Board. Our National Quality Organization Leader, Jorge Milo, is a member of the CAQ's Professional Practice Executive Committee.

Our work with the CAQ is not limited to technical and regulatory discussions. We engage in dialogue about profession-wide matters, including how to attract a sufficient pipeline of talent into the profession with the skillset needed to perform audits of the future, and identifying areas in which the profession may provide additional value to companies and the capital markets.

We have the privilege of engaging with a wide array of stakeholders, including audit committee members, directors, and members of the investment community. We hear their unique perspectives, insights, and feedback on various regulatory and profession matters. And we share our views and perspectives. Through this dialogue, we can continually evolve our thinking in order to meet the expectations of all of our stakeholders.



# Appendix: Legal and governance structure

## Legal structure and ownership of the firm

The firm is a limited liability partnership established under the laws of the State of Delaware. All interests in the firm are held by its partners and principals.

## Governance structure of the firm

The firm's Senior Partner serves as Chairman and Chief Executive Officer and manages the firm pursuant to the powers delegated to him by the firm's partners. The Senior Partner may appoint people and committees to assist with firm management, and discusses the firm's philosophy, policies, and direction with the Board of Partners and Principals in its governance role.

To assist in discharging his responsibilities, the Senior Partner has appointed a Leadership Team to work with him to manage the firm. The responsibilities of the Senior Partner and the Leadership Team include establishing and determining the effectiveness of the firm's system of internal control, including controls relating to the quality of the firm's audit services. Changes to the Leadership Team are determined by the Senior Partner. The Senior Partner is elected by a partner vote for a four-year term. The Senior Partner may be reelected for a second and a third term, unless limited by age according to the partnership agreement and, with respect to any third term, subject to the Board of Partners and Principals approving the individual's nomination. Members of the Leadership Team as of August 2017 are:



**Tim Ryan**  
US Chairman and Senior Partner



**Mauricio Hurtado de Mendoza Valdez**  
Mexico Country Senior Partner



**Roz Brooks**  
Public Policy



**Mohamed Kande**  
Advisory Leader



**Caroline Cheng**  
General Counsel



**Christine Lattanzio**  
Communications and Change Management



**Martyn Curragh**  
Chief Financial Officer



**Mark Mendola**  
Vice Chairman and US Managing Partner



**Mike Dillon**  
Chief Diversity & Inclusion Officer



**Amity Millhiser**  
Chief Clients Officer



**Suneet Dua**  
Network Leader



**Maria Castañón Moats**  
Assurance Leader



**Vicki Huff Eckert**  
New Business & Innovation Leader



**Gary Price**  
Partner Affairs Leader and Chief Administrative Officer



**Miles Everson**  
Global and Asia Pacific Americas Advisory Leader



**Reggie Walker**  
Chief Commercial Officer



**Mike Fenlon**  
Chief People Officer



**Roy Weathers**  
Tax Leader



**Jim Flanagan**  
Vice Chairman and US Managing Partner



**Sigal Zarmi**  
Chief Information Officer

## Board of Partners and Principals

### Authority

Pursuant to the authority delegated to it by the firm's partners, the Board is responsible for overseeing the overall strategic direction of the firm. It oversees long-range strategies and business plans, and approves major transactions that could significantly affect the firm's business. Its authority also includes the approval of the firm's capital policies, the manner in which partners participate in firm profits, and the admission of new partners.

It approves the compensation of the Senior Partner and members of the Leadership Team as a group, after review and recommendation by a committee of the Board. All candidates proposed by the Senior Partner Nominating Committee to stand for election as Senior Partner must also be approved by the Board.

### Composition

The Board consists of partners and principals of the firm who have been elected for staggered terms of approximately four years. For the first time, in 2017, we appointed two external directors to the Board. Our decision to bring in outside directors has been several years in the making, including an extensive search for the right, qualified candidates who could serve in this important role. These external members also meet our rigorous independence requirements to protect our reputation, objectivity and integrity. We look forward to adding their insights, expertise,

and objective perspectives into our governance process as we consider the firm's strategy, growth, and service offerings.

The Board is chaired by a Lead Director, who is elected by the members of the Board other than the Senior Partner. As of August 2017, there are 21 members of the Board in addition to the firm's Senior Partner:

### *Members of the Board of Partners and Principals*

Tim Ryan—US Chairman and Senior Partner

Alan Page—Lead Director

Thomas Archer

Mark Borden

Len Combs

Brian Cullinan

Brendan Dougher

Carrie Duarte

John Farina

Ray Garcia

Scott Gehsmann

Carlos Gutierrez, External Director

Dave Hoffman

Paul Kepple

James Kolar

Paula Loop

Brian Meighan

Carol Pottenger, External Director

Michael Quinlan

Lisa Sawicki

Deidre Schiela

Jose Ignacio Toussaint

### Committees

The Board is assisted by various committees that help to carry out its role. The Risk and Quality (R&Q) Committee provides oversight and monitors the appropriate policies, processes, and procedures for managing and minimizing risks of the firm. The R&Q Committee also comprises the Accounting and Auditing Practice Committee, which provides oversight of the accounting and audit practice of the firm.

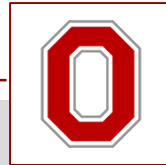
As requested by the Board, the R&Q Committee reviews regulatory matters that affect the firm and, as appropriate, other parts of the PwC Network. Such matters may include accounting licensing and professional standards issues, internal and external quality inspection results, and global regulatory trends.

### *Board member selection process*

The partner vote for selecting Board members who are partners or principals of the firm is on a headcount basis. Partners vote by ranking the candidates for the Board. The candidates with the most votes are elected. Board elections are supervised by an independent election teller.

External Directors are elected to the Board by the affirmative vote of two-thirds of the members of the Board voting thereon.

# Compliance and Integrity Program



## Audit and Compliance Committee

February 1, 2018

**OFFICE OF LEGAL AFFAIRS  
CHRISTOPHER CULLEY**

**OFFICE OF UNIVERSITY COMPLIANCE AND INTEGRITY  
GATES GARRITY-ROKOUS**



# Research Integrity Program

*Ongoing efforts to ensure the responsible conduct of research through emphasis of the highest standards of research integrity, improved training, and engagement of Colleges*

## Overview

- Instances of false or fraudulent research occur regularly across higher education
- National Academies of Science, Engineering, and Medicine issued Report calling for renewed international efforts among researchers, institutions, sponsors, and federal agencies
- Report calls for standards of conduct that go beyond minimal compliance with federal regulations
- OSU is committed to be a leader in this effort



Ohio State Research  
**Innovation for a global future**

**Responsible Conduct of Research**

As a national flagship public research university, The Ohio State University is privileged and compelled to model the highest standards of research integrity. To affirm our commitment, Ohio State is now requiring everyone who is eligible to conduct research to be trained in the Responsible Conduct of Research (RCR). As a first step, all research eligible individuals must take the Collaborative Institutional Training Institute "CITI" RCR course. This requirement is in addition to any other RCR training that you may have taken to date.

[CLICK HERE TO COMPLETE RCR COURSE](#) [RCR FAQs](#)

About the CITI RCR Course

Research Integrity Board Working Group Agenda and Materials 12-19-17 AC privileged.pdf - Adobe Acrobat

## Key Actions

- Engaged colleges and research community
- Assigned Responsible Conduct of Research (RCR) training to ~26,000 university faculty, staff, and students engaged in research
  - Detailed, useful, discipline-specific training (5-8 hours)
  - Many departments already required RCR training
  - Completion by June 2018

# EU General Data Protection Regulation

*Controls data protection for all individuals within European Union (EU) and export of personal data outside the EU.  
Enforcement commences on 25th May 2018.*



## Overview

- European Union (EU) adopted General Data Protection Regulation (GDPR) in 2016
- GDPR is comprehensive regulation that protects personal data of natural persons physically present in EU
- Effective date: 5/25/2018

**Intent:** To increase control over personal data and create simpler legal environment for businesses by making data protection laws consistent across all EU member states

- Defines data privacy is fundamental right
- Regulates data transactions in general (unlike FERPA, HIPAA, etc.)
- Covers entire life cycle: collection, retention, breaches, disclosures, and deletion

**Application to OSU.** Applies where OSU controls or processes data of EU citizens, e.g.:

- Students, applicants, faculty and staff who are EU citizens
- Students, faculty, and staff participating in OSU sponsored programs in EU
- OSU research sponsored by EU organizations or involving EU citizens
- OSU marketing or outreach to or accessed by EU Citizens

# EU General Data Protection Regulation

*Controls data protection for all individuals within the European Union (EU) and the export of personal data outside the EU. Enforcement will commence by 25th May 2018.*

**Key requirements** – Requires “personal data” to be:

- Processed lawfully, fairly and in a transparent manner
- Collected for specified, explicit and legitimate purposes and not further processed in a manner incompatible with those purposes
- Accurate and erased or rectified without delay
- Kept in a form which permits identification for no longer than necessary
- Processed in a manner that ensures appropriate security

## **Other Provisions**

- Designation of an EU representative and data protection officer
- Breach notification within 72 hours
- Data protection impact assessments when there is a high risk to privacy

## **Key University Actions**

- Alignment of Privacy efforts with existing privacy and security controls, where possible (Information Security, HIPAA, FERPA, etc.)
- Designation of a university Privacy Officer and establishment of team
- Prioritization of student and faculty recruitment processes

# Marching Band Culture Update

## (2017 Season)

### THE OHIO STATE UNIVERSITY MARCHING BAND



- ### 2017 Season
- No Title IX violations
  - 7 successful road trips
  - 6 pep band performances without incident
  - 15 student leadership and life skills education sessions

## Culture: Key Controls

### Student Education

- **Band-wide:** Title IX, health and wellness, alcohol education, bystander intervention, social media management (prepared by campus partners in consultation with student leaders)
- **Student leaders:** leadership principles, soft skills, stakeholder awareness, working with minors

### Controls on External Influences

- Volunteers, athletic trainers, vendors trained with band staff on Title IX and hazing
- All part-time staff and volunteers sign agreements mandating compliance with cultural blueprint and reporting of student misbehavior
- External performance (“pep band”) contract

### Staff Education

- **Focus:** Title IX, hazing, university oversight, working with minors
- **Greater staff engagement** educating students on cultural issues (e.g., alcohol use, social media, conflict management)

### Student-Led Initiatives

- Community service events (e.g., food drive)
- Creation of affinity groups (e.g., board game club, ice cream club, faith-based groups)
- Bringing in presenters for optional life skills & wellness sessions



# Title IX: OCR Resolution Agreement

## Overview and Status

Activity	Steps	Status				
		2014-15	2015-16	2016-17	2017-18	
<b>Title IX Coordinator</b>	<ul style="list-style-type: none"> <li>Published detailed statement outlining the roles and responsibilities of Ohio State's Title IX Coordinator (11/15/14)</li> </ul>	Complete	Complete	Complete	Complete	All requirements met.
<b>Document Maintenance</b>	<ul style="list-style-type: none"> <li>Created a coordinated document management process for all Title IX complaints (12/15/14)</li> </ul>	Complete	Complete	Complete	Complete	All requirements met.
<b>Policies</b>	<ul style="list-style-type: none"> <li>Revised Notice of Nondiscrimination and post online as appropriate (10/15/14)</li> <li>Revised "Reporting Sexual Assault" link on Campus Police website (10/15/14)</li> <li>Reviewed and revised all sexual harassment policies for consistency (10/15/14)</li> <li>Sexual Misconduct policy taken from interim to final status (effective 8/23/16 per President's Cabinet). Revised the Code of Student Conduct consistent with the revised Sexual Misconduct policy, BOT approved 4/8/16</li> <li>Submitted evidence of policy communications in nineteenth progress report (10/15/16)</li> <li>Submitted annual information on complaints during academic year to OCR (6/10/16)</li> <li>Submitted annual information on complaints during academic year to OCR (6/15/17)</li> </ul>	Complete	On Track	On Track	On Track	<p>Submitted revised Code of Student Conduct and final Sexual Misconduct policy to OCR in 8/5/16 status report. Submitted proof of how updated policy was communicated to Ohio State community in 10/15/16 status report.</p> <p>Submitted information on AY 2015-2016 complaints to OCR in 6/10/16 status report; <b>awaiting OCR feedback.</b></p> <p>Submitted information on AY 2016-2017 complaints to OCR in 6/15/17 status report; <b>awaiting OCR feedback.</b></p>
<b>Training</b>	<ul style="list-style-type: none"> <li>Reviewed Student Wellness Center programming to ensure consistency with Resolution Agreement standards (12/15/14)</li> <li>Developed Title IX Coordinator and investigator training (12/15/14)</li> <li>Identified Title IX training module for employees (12/15/14)</li> <li>Reviewed and revised orientation program and materials for incoming students (12/15/14)</li> <li>Verified annual Title IX training conducted during previous calendar year (6/10/16)</li> <li>Provide training to specific groups identified in climate survey (annual)</li> </ul>	Complete	Complete	Complete	On Track	<p>Revised training materials approved by OCR in their response on 4/14/2017.</p> <p>Submitted evidence of Title IX training conducted during previous calendar year to OCR in 6/10/16 status report.</p> <p>Submitted documentation on training provided to specific groups identified in both the AY14-15 and AY15-16 climate surveys in 10/15/16 status report.</p> <p>Will provide verification of training to specific groups informed by AY16-17 results campus climate survey results in the 1/31/18 status report.</p>
<b>Climate Assessment and Response</b>	<ul style="list-style-type: none"> <li>Added OHR representative to Sexual Violence Consultation Team (1/15/15)</li> <li>Established campus working group on Title IX and climate survey (9/30/14)</li> <li>Reviewed last 2 years of sexual harassment complaints (12/15/14)</li> <li>Developed recommended actions as appropriate based on review (12/15/14)</li> <li>Developed and conducted annual climate survey (3/23-4/22/16)</li> <li>Developed and conducted annual climate survey (2/5-3/10/17)</li> <li>Analyze survey results to identify need for additional actions and training as appropriate (annual)</li> </ul>	Complete	On Track	On Track	On Track	<p>Submitted results of AY15-16 climate survey and written recommendations based on results in 1/15/17 status report; <b>awaiting OCR feedback.</b></p> <p>Developed and disseminated AY16-17 climate survey. As noted in 1/15/17 status report, written recommendations will be submitted on or before January 2018. Submitted proof of AY16-17 climate survey dissemination in 6/15/2017 status report. Results of the AY16-17 climate survey and recommendations will be sent to OCR in 1/31/18 status report.</p>
<b>Student-Focused Remedies</b>	<ul style="list-style-type: none"> <li>Reviewed last 3 years of sexual harassment complaints for prompt and equitable investigation (1/15/15)</li> <li>Take appropriate action to address identified problems (within 30 days of OCR approval)</li> </ul>	Complete	Complete	N/A	N/A	Reported findings to OCR in 2/27/15 status report and 9/15/15 addendum; submitted documentation of identified "process improvements" to address issues in the addendum in 8/5/16 status report. Approved by OCR in their response on 4/14/17.
<b>Marching Band Investigation</b>	<ul style="list-style-type: none"> <li>Developed timetable for corrective actions (11/1/14)</li> <li>Submit quarterly progress report to OCR (beginning 10/15/14)</li> </ul>	Complete	Complete	On Track	On Track	<p>Continuing implementation.</p> <p>6/15/2017 status report included documentation addressing ongoing climate surveys with respect to the marching band; <b>awaiting OCR feedback.</b></p> <p><b>Awaiting OCR feedback</b> about whether one final progress report is required to be included in the 1/31/18 status report or beyond.</p>






AUDIT AND COMPLIANCE COMMITTEE				2015-16	2016-17	Current Status
<b>A. Strategic Risk Mitigation Effectiveness</b>						
1. <b>Education</b> (risks related to decrease in academic standing; harm in ability to attract faculty/students)				↔	↑	↑
2. <b>Scholarship</b> (challenges to ability to perform significant academic or scientific research)				↓	↑	↔
3. <b>Information Technology</b> (inability to store, develop, transmit, or protect data)				↔	↔	↔
4. <b>Student Life</b> (inability to maintain an environment conducive to student life)				↔	↔	↔
5. <b>Athletics</b> (risk of disruption to Athletics operations, including significant NCAA violation)				↔	↔	↔
6. <b>Medical</b> (significant reduction in performance of the health system and related colleges)				↑	↔	↔
7. <b>Financial</b> (inability to reach capital, revenue, or cost containment objectives)				↔	↔	↔
8. <b>Physical Environment</b> (loss of infrastructure; major event impacting ongoing operations, including campus safety)				↔	↔	↔
9. <b>Government, Community and Affiliates</b> (failure to monitor and develop government, community, or affiliate relationships)				↓	↑	↑
10. <b>Talent and Culture</b> (failure to attract, develop, or retain talent)				↔	↔	↔
11. <b>Advancement</b> (events impacting OSU brand, alumni relationships, or Advancement objectives)				↓	↔	↔
12. <b>Compliance</b> (failure to meet regulatory, legal, or policy requirements not captured in above categories)				↔	↑	↑
		2013-14	2014-15	2015-16	2016-17	2017-18 <sup>1</sup>
<b>B. Public Records<sup>2</sup></b>						
1. Number of records requests closed		576	769	842	959	384
2. Average days to fill all records requests		14	21	15	16	17
<b>C. Internal Investigations (rated 4 or 5)</b>						
1. Number of investigations opened in the fiscal year		17	20	17	17	12
2. Number of investigations closed in the fiscal year		16	16	19	15	9
3. Percent of closed investigations with findings		56%	31%	52%	27%	23%
<b>D. Regulatory Actions<sup>3</sup> (rated 4 or 5)</b>						
1. Number of current regulatory actions			7	10	12	13
<b>E. Internal Audit</b>						
1. Number of audits cleared at second follow-up during the fiscal year				11	9	3
2. Number of audits open after second follow-up or cleared at third follow-up or later during the fiscal year				4	4	3

**COMMENTS & FOOTNOTES**
<sup>1</sup>Includes data from 7/1/17 through 1/1/18

<sup>2</sup>Processed by Public Records Office only

<sup>3</sup>Includes audits, fines, probations, sanctions, warnings, or other similar actions

**Mitigation Effectiveness Rating**

	Meets or Exceeds Goal
	
	Caution
	
	Below Goal - Action Needed

**Trend**

↑	Environment/Performance Improving
↔	No Significant Change/On Track
↓	Environment/Performance Worsening