

Power and utilities changing workforce Keeping the lights on

December 2013

At a glance

Are workforce issues keeping you up at night? A rapidly evolving workforce is re-shaping the risk profiles of America's power & utilities organizations, posing challenges to traditional control and compliance capabilities. Is your organization prepared?



Introduction

A rapidly evolving workforce is re-shaping the risk profiles of America's power & utilities organizations, posing challenges to their traditional control and compliance capabilities. One possible solution: A more systematic approach to capturing and keeping core know-how—and new ways of transmitting that knowledge to a younger generation.

The new talent gap

Ask utilities executives what keeps them awake at night and workforce issues will likely loom large.

That's not just because labor costs—historically higher in this industry relative to others—seem to be trending upward again. As the economy recovers, turnover rates are rising too. And with experienced workers now emboldened to revive their retirement plans, and far too few younger people ready to replace them, the talent gap that already threatened the industry pre-recession has re-emerged.

New research reveals both the scale of the challenge, and its complexity. It comes from PwC's Human Resource Services practice— PwC Saratoga, the world's leading source of workforce measurement, and a thought leader on the subject of HR benchmarking and Predictive Analytics, which analyzed data submitted by 29 utilities, representing nearly a quarter of a million employees.¹

The research shows, for example, the accelerated pace at which utilities are losing key workers. The voluntary turnover rate climbed by a full percentage point between 2010 and

2012, and for high performers and early tenured employees the rate of separation was especially high (see Figure 1).

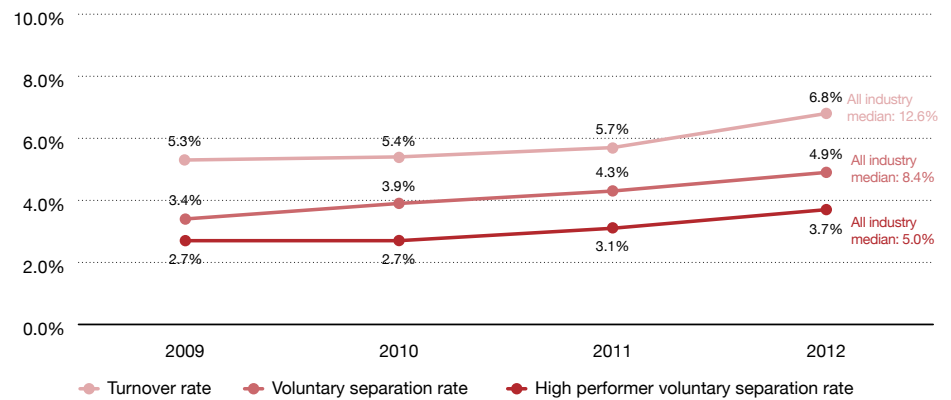
This has created a turning point for utilities precisely because they have had so many decades of stability. Other industries have tended to experience higher turnover on a regular basis, so they are more experienced and better equipped in terms of talent acquisition and retention. Utilities, by contrast, may now have to rethink both their approach to process and their employee value proposition as they

¹ The PwC Saratoga 2013/2014 US Human Capital Effectiveness Report includes data from US operations for more than 300 organizations representing 12 industry sectors for the 2012 calendar year. Utilities sector benchmarks are based on data submitted by a consortium of 29 utilities organizations representing nearly a quarter of a million employees.

confront the increasing turnover of newer and high performers, as well as the accelerating loss of experienced employees due to retirement.

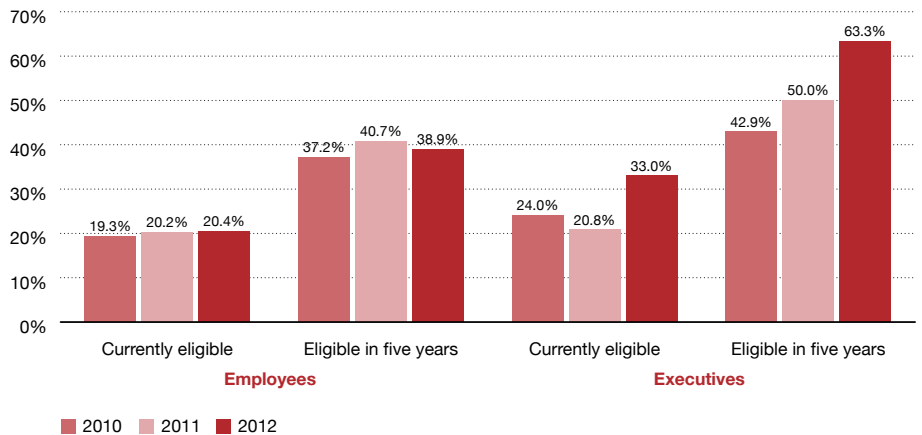
Moreover, while the number of employees currently eligible for retirement (or due to become eligible over the next 3-5 years) appears to have stabilized, eligibility rates for executives have continued to increase. Indeed, there was a 50% jump in executives currently eligible for retirement between 2011 and 2012 (see Figure 2 from PwC's *Saratoga 2013/2014 US Human Capital Effectiveness Report—Utilities cut*).

Figure 1: Voluntary separations



Source: PwC's *Power and Utilities Changing Workforce*.

Figure 2: Retirement rates



Source: PwC's *Power and Utilities Changing Workforce*.

Small wonder that benefits costs (and retirement benefits in particular) constitute such a significant proportion of rising labor costs (see Figure 3).

Pension packages offered by utilities can be extremely generous. Retiring workers are receiving as much as 80% of their final year's salary or the average of their last few years' salary plus all, or nearly all, of their medical benefits. Not only does the utility have to continue paying out these sums, it also has to pay benefits for the replacement employees coming in, with increasing costs on the medical benefits side. This is further exacerbated if the utility needs to take multiple shots at replacing the same positions because the higher performers that could perhaps do more are leaving. Productivity takes a hit and acquisition costs are repeated.

The strengthening recovery has had positive results, to be sure. Our cross-industry research shows, for example, that the productivity of US workers rose in 2012 for the first time since the recession (see Figure 4 from *PwC's Saratoga 2013/2014 US Human Capital Effectiveness Report*).

However, potential workforce vulnerabilities could stymie these gains—especially in sectors such as utilities, given a rapidly aging workforce and a new generation inclined to switch jobs much more frequently.

Our research shows that the turnover of utility employees in their first year was significantly higher in 2012 than in 2011 (see Figure 5). As the economy continues to strengthen, widening the range of job options for footloose Millennials. PwC Saratoga anticipates that first-year turnover will rise further, increasing the cost pressure on organizations. If we assume, for example, that for every 1,000 new employees, 100 or so leave, at a cost of \$2,300 to \$3,600² per hire, that translates into significant cost—not to mention productivity losses.

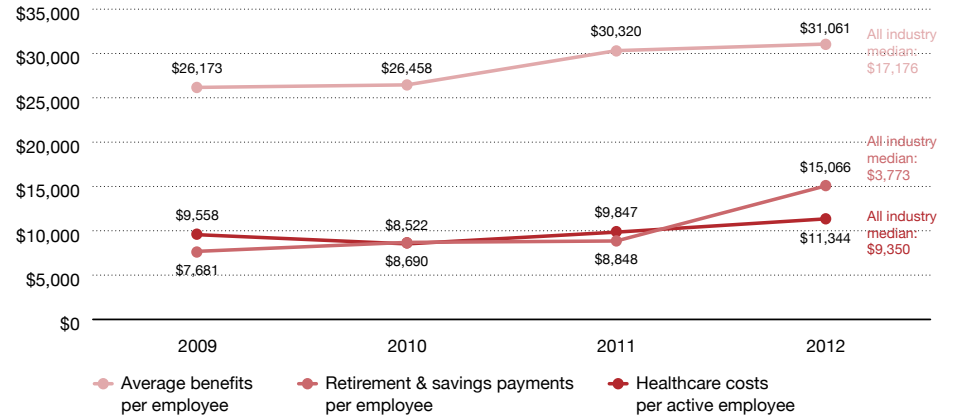
We anticipate a future in which a much wider range of available technologies, resource scarcities and demographic shifts will impact the industry. Talent, moreover, will be even more critical to maintaining sustainable growth. According to PwC's 2013 US CEO survey, nearly three quarters of US

CEOs expect to change their talent management strategies, 80% plan to strengthen employee engagement programs, and 89%, in developing their leadership pipelines, will include active succession planning.

Increasing retirement eligibility, the generational shift in the traditional utility workforce, and rising turnover and benefits costs are clearly aligning to drive a negative impact on productivity for the sector. As a result, traditional “word-of-mouth,” on-the-job training of utility workers is not sustainable. More than ever before, work processes and procedures should be documented and continuously improved. Explicit governance and controls procedures should be put in place and sustained. Moreover, focused and efficient knowledge transfer and succession planning approaches should align with the operational imperatives of the company.

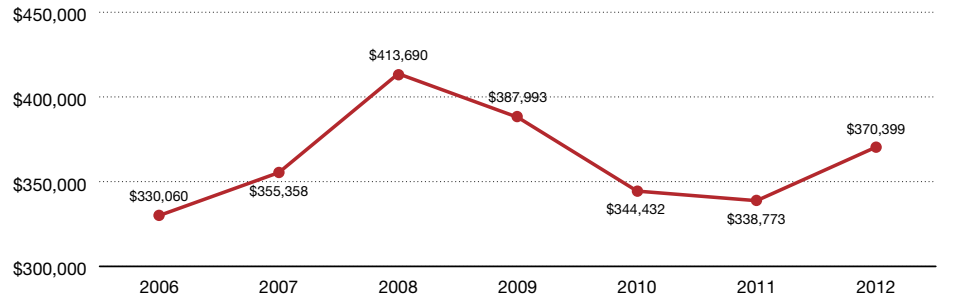
² Based on 2012 data in the *PwC Saratoga online Workforce Diagnostic System Benchmarking Report*, the Cost to Hire for all industries has a median of \$2,317. The 25th percentile is \$1,435 and the 75th percentile is \$3,606. Hiring costs include advertising costs, agency costs, travel and interview costs, new hire relocation costs, employee referral bonus costs, and HR department recruiter compensation and benefit costs. Utility specific data was not available for this measurement.

Figure 3: Benefits costs



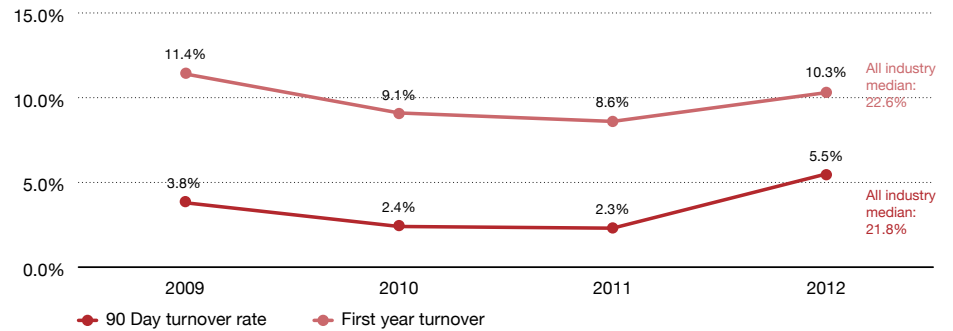
Source: PwC's Power and Utilities Changing Workforce.

Figure 4: Revenue per FTE



Source: PwC's Power and Utilities Changing Workforce.

Figure 5: 90 Day and First year turnover



Source: PwC's Power and Utilities Changing Workforce.

A changing risk profile

Most utilities organizations recognize that these trends are changing their risk profile—and some are already experiencing the implications for operational controls and levels of compliance, as well as for the integrity of their financial data.

The impact on individual utilities will vary, depending on the retirement and hiring profiles of each organization, as well as its level of tactical versus strategic focus. Furthermore, some risks may stay “hidden” because some employees are staying longer but resisting innovation, improved controls and governance. Employee resistance, particularly at the rank and file level, creates potential, if not immediately obvious liabilities, such as safety incidents along the way.

By forcing older employees either to delay retirement or to remain in place as contractors, the recession has helped perpetuate the conservative, consensus-driven culture that has challenged innovation in the industry. A job in the utilities sector has traditionally been seen as a “job for life,” reinforced by social networks developed over decades. Those networks have sustained Baby Boomers staying on beyond retirement age to help their kids pay for college or to support offspring who bounced back after graduation

because they couldn’t find work. But they have not motivated the new mindsets and processes that could help bridge the widening talent gap.

Why, for example, would a worker who’s been successfully doing things “my way” for 20-30 years change tack now, particularly if he or she only has a few more years until retirement or is back on the job as a contractor? Is there incentive for such a worker to take the initiative to drive improvements in an industry subject to extensive regulatory oversight if doing so runs the risk of creating potential liabilities for themselves and their employer?

The tendency of veteran utilities workers to retain valuable institutional knowledge in their heads and to pass it on orally, rather than systematically documenting and updating it, has compounded the problem. When these workers leave, intellectual capital is often lost if a formal program to capture know-how is absent. Their departure can impact efficiency and create risk for the utility—especially as they typically go before replacements can be effectively on-boarded.

Those replacements, moreover, arrive with very different attitudes and professional expectations. What seasoned workers have traditionally seen as a step up on the seniority or corporate ladder, today’s young

employees are more likely to see as a resume builder. What’s more, if they don’t find the challenging working environment they’re looking for, they won’t hesitate to jump ship—a move that has become a whole lot easier with the advent of social media.

Younger workers also learn differently. They tend to be much more tech-savvy—good news for the industry as smart-grid infrastructures and alternative fuels transform its rather staid, old-fashioned image. Even state-of-the-art utilities, however, still need to be able to speak the language of today’s technology driven generation. And while some organizations have been experimenting with new digital technologies and e-learning approaches to attract and retain younger people, most still lack appropriate training skills and procedures. Training manuals in the form of three-inch ring binders and a classroom-based, instructor-led approach simply may not be attractive to a digital generation that wants to learn largely online and at its own pace.

Nor has outsourcing to bridge the talent gap or resource shortages helped in all cases. Because daily roles and responsibilities are sometimes not well documented, outsourced providers may not be prepared when problems arise—and could be blamed for not handling issues satisfactorily.

Unless utilities organizations can find ways of successfully embedding the knowledge lost as seasoned workers leave—and persuading a younger generation that the sector offers career opportunities exciting enough to stick around for—they will struggle to keep America’s lights on.

Their predecessors tended to resolve problems on the fly, so few in senior management actually realized they had even arisen. Now, however, such issues may become exposed for all to see. And when the outsourced provider tries to troubleshoot, they struggle to come up with right fix first time because they simply don’t understand the processes behind day-to-day decision making.

The result: operational, compliance and financial risks may be growing as guesswork at times has become a substitute for systematic knowledge retention, training suffers from the absence of appropriately standardized processes, and inadequate accountability procedures prevent people from fully understanding their responsibilities. There is no “one size fits all” way to address these challenges. They must be addressed at the organizational and/or department levels to reflect the unique workforce profiles of groups at those levels.

A fresh approach

If utilities organizations are to adapt effectively to the evolving risk profiles associated with these technology, resource and demographic trends, they will likely require a more efficient and effective approach to succession planning and knowledge transfer; especially since the rate of process and technology change is likely to accelerate as the pace of workforce rotation picks up and organizations increasingly adopt a culture of continuous improvement.

Utilities should also consider how controls can be developed and subsequently leveraged to establish an effective governance process whereby process documentation, work procedures and other relevant employee knowledge can be captured and retained in a versatile medium for future training, guidance and reference. Technology can also serve as an effective control to reduce manual processing and facilitate the consistent operation of processes through automation. These enhancements can bolster the resilience of knowledge retention, as well as increasing the overall effectiveness of outsourced services and improving the maintenance of existing technologies.

So, how do you get started? In our experience, it begins with asking the right questions. Those questions, of course, will be situation specific.

But as a rule of thumb, utilities organizations should consider the following:

Knowledge Retention & Sourcing

- *How do you assess current employees’ competency/level and understanding of work practices, and evaluate their knowledge and execution of job responsibilities?*
- *Have you gauged your organization’s risk/tolerance level for loss of knowledge? What risk mitigation activities are you considering?*
- *What practices do you have in place to transition knowledge from departing employees and transfer the knowledge of tenured employees to new ones?*

Operations

- *Have you experienced any operational or compliance failures as a result of personnel or organizational changes?*
- *Do you analyze the results of operational and compliance breakdowns so that improvements can be made, i.e. via further training and/or specificity in process work instructions?*
- *How are you monitoring the continued effectiveness of operational and compliance activities, and making the necessary updates to i.e. business process, personnel responsibilities and technology related decisions?*

Technology & Processes

- *Have you documented current work procedures for IT systems, business processes, and operational processes that consider customizations or deviations from standard working practices?*
- *How reliant are you on legacy or highly customized applications?*
- *Have you implemented leading practices in your processes to increase effectiveness, and facilitate knowledge transfer and training techniques?*

For most organizations, this process of self-examination reveals three core areas where there is potential for improvement:

1. **Knowledge Retention & Succession Planning**
2. **Operations**
3. **Technology & Processes**

Knowledge Retention & Succession Planning

Succession planning has become much too critical an issue to relegate to an annual meeting with HR. It's essential to establish a more frequent and richer conversation—to give HR, in other words, a central, ongoing and strategic role.

While utility HR organizations recognize the importance of becoming more effective strategic partners to the business units, they often need help improving their processes in support of that goal. They also need to understand just how big this challenge is, and how to address it, though there is no silver bullet.

In the past, when utilities' HR organizations installed technology to support the effective execution of their processes, for example, the implementation was often so

customized that processes remained dependent on the knowledge and experience of a few select individuals, reinforcing or even creating a retention risk for both HR and the company. In addition, the resulting complexity of systems, processes and procedures ultimately hindered the automation they sought.

One utility, for example, urgently needed to simplify HR processes in order to minimize risk and improve cost efficiencies. The utility was in the third or fourth quartile in terms of HR costs as a percentage of revenues and HR costs per employee relative to other companies both inside and outside the sector. Moreover, turnover and organizational changes were leading to significant knowledge loss, driving more risk into the utility's processes.

The utility needed to simplify HR processes by reducing manual, transactional work and shifting to the more strategic support functions that its business units required—more integrated talent management, workforce planning and management, and better analytics and reporting. The overall goal was to create better, holistic employee lifecycle processes (including better measurement metrics), and better access to the HR data needed for business decision-making.

The transformation began with the creation of a granular, multi-year, multi-phase roadmap to address knowledge transfer, as well as process, systems and data management. The utility recognized that successful systems and processes would first require some fundamental changes. And importantly, the first phase of the plan focused on foundational activities including the establishment of a process, data and policy governance structure, and the targeted reduction of system customizations.

The utility had been continually customizing its existing systems to fit processes that were in many cases decades old and not aligned with leading practices. As a result, the HR organization was being forced to pursue system customizations of its own, compounding the problem. HR needed to establish a rigorous system, data and process governance structure that would include compliance and control mechanisms.

Basic HR master data had to be cleaned in order to eliminate duplicate employee records, job mismatches and misaligned qualifications catalogs—all of which were limiting training effectiveness

and the ability to source appropriately qualified personnel as well as their availability to do specific field work.

This HR organization is only beginning to understand the complexity behind its transformation. But by recognizing the magnitude of the issues involved, it is learning to develop the appropriate responses and solutions as first steps in overcoming the challenges.

This HR organization is only beginning to understand the complexity behind its transformation. But by recognizing the magnitude of the issues involved, it is learning to develop the appropriate responses and solutions as the first steps in overcoming the challenges.

Operations

Operational effectiveness is critical to successful compliance. But an ageing workforce, deeply knowledgeable but prone to resist change, can significantly complicate how an organization thinks about operational improvements—unless such workers are fully integrated participants in the change effort. Consider, for example, the task lists or job plans that can help capture specific job steps, crucial safety information, and the “grab points” for the big jobs that experienced employees are so familiar with.

Job Plans

One utility had experienced multiple layoffs and forced retirements, and the average age of its remaining maintenance workforce was 54. The organization did not have procedures in place to require employees to document their daily tasks, escalation and incident management activities, as well as the rationale to support the design of current processes and activities, which has had a significant impact on knowledge retention, position transition, and training activities. Those who could perform such specific jobs as major role changes, and knew just where parts and special jigs were located, carried out their tasks well. But there were other maintenance areas where organizational changes had been so rapid that key knowledge had been lost. The utility made a list of major jobs that were likely to need a job plan and prioritized it according to how soon workers would be leaving and the complexity of their jobs. An intern was assigned to work with the maintenance function on role changes, relieving those employees who were less secure about detailed documentation of the write-up burden. The intern was trained in what to look for and what questions to ask. And by taking pictures of actual

role changes, and pointing out the specific nuances associated with each task, the intern produced illustrated job plans that explained exactly how the jobs were to be performed, as well as the tools and parts they required.

By leveraging their existing investments and making experienced employees part of the change team—encouraging them, for example, to visit plants where change is already underway and present their findings to the rest of the workforce—organizations can reassure their employees that passing on the information essential to effective job plans won't make them vulnerable to criticism, or make it easier to hustle them out the door.

Indeed, with the right change management techniques and procedures in place, veteran employees can be in a better position to serve organizations as operational assets, rather than liabilities.

Technology & Processes

Many utilities have recognized the importance of standardized, streamlined IT systems and the processes they drive as key enablers of better decision making and reduced risk. And some have taken steps to consolidate their typically fragmented legacy systems. That exercise, however, can be frustrated—unless detailed work rules are in place to safeguard core institutional knowledge as part of change management practices.

Consider the case of one large utility that decided to implement a single, company-wide ERP system. The utility contracted an appropriately experienced third-party specialist to drive the project, but soon discovered that the new technologies brought in by this third-party were challenging the change agility of its aging workforce. Hiring an additional outside specialist to support the new system didn't help. In fact, it complicated the situation by

introducing a workforce new to the company (or new to their roles) that simply didn't understand the utility's internal environment.

Furthermore, changes were implemented in the incorrect order, and processing errors multiplied threatening not only the stability and success of the existing implementation but also subsequent system upgrades and changes. This was further exacerbated by departure of key personnel with the resident institutional knowledge.

Effective governance and controls

Though often overlooked, embedding controls that encompass people capabilities, performance management, and—crucially—monitoring strategies, will transform tactical approaches designed to meet immediate operational needs into more sustainable, efficient and effective procedures. By supporting

This utility has now recognized that it should have confirmed that all existing institutional knowledge was retained in standard work instruction procedures before restructuring its IT systems.

process and personnel change as a business-as-usual activity, rather than as an emergent concern, organizations can help to reduce risk. Changes in processes and people will then be reflected in business processes, data, systems and technology, and organizations could see real benefit and sustainable long-term value.

Conclusion

The approach to succession planning and knowledge transfer that we outline in this paper may help utilities develop the end-to-end process understanding and transparency they need to mitigate the risks to their control and compliance capabilities posed by rapid technology, resource and demographic change.

It is suggested that they implement a communication and knowledge management strategy for each key business and operational process, as well as identify and plan for

increased resource requirements, especially for the more complex process and technology changes. And it's likely they will also require a framework to monitor ongoing change—in addition to regular and continuous training so that policy procedures are constantly updated.

As a result, they may not only gain a truly detailed understanding of the requirements of their business going forward, but they may also motivate staff and improve retention levels. Their people may more fully appreciate how individual job responsibilities impact other essential processes. And by eliminating manual intervention and improving controls, they can potentially increase the speed of operational tasks—a positive development for both the business and its employees, especially for a younger generation hungry for challenge and keen to make its mark.

To have a deeper conversation about how this subject may affect your business, please contact:

Alan Conkle, Partner

PricewaterhouseCoopers

312 298 4461

<http://www.linkedin.com/pub/alan-conkle/b/884/b42>

Dennis Curtis

Power and Utilities Risk Assurance Director

PricewaterhouseCoopers

313 394 6065

www.linkedin.com/pub/dennis-curtis/11/763/204

Tim Schutt, Principal

Power and Utilities Advisory Leader

PricewaterhouseCoopers

678 419 1472

<http://www.linkedin.com/pub/tim-schutt/11/365/64>

Philip McLemore

Power and Utilities Talent Director

PricewaterhouseCoopers

415 498 5410

<http://www.linkedin.com/pub/philip-mclemore/0/295/271>



Recycled

Supporting responsible use
of forest resources

www.fsc.org Cert no. XXX-XXX-XXXX
© 1996 Forest Stewardship Council



This publication is printed on Mohawk Options 100PC.
It is a Forest Stewardship Council (FSC) certified stock using 100% post
consumer waste (PCW) fiber and manufactured with renewable, non-
polluting, wind-generated electricity.

© 2013 PricewaterhouseCoopers LLP, a Delaware limited liability partnership. All rights reserved. PwC refers to the US member firm, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see www.pwc.com/structure for further details.

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors. PwC US helps organizations and individuals create the value they're looking for. We're a member of the PwC network of firms with 169,000 people in more than 158 countries. We're committed to delivering quality in assurance, tax and advisory services. Tell us what matters to you and find out more by visiting us at www.pwc.com/us.