



## SKILLS INDEX

# Bridging the IT skills gap in project management

## KEY TAKEAWAYS

- 1/ As companies scramble to line up data analysts to harness their data and support business operations, they are overlooking an equally pressing need: IT staff with project management skills.
- 2/ Three challenges—rapidly evolving technologies, lack of a career path, and insufficient training—have contributed to this skills gap.
- 3/ Companies can build the necessary capabilities by devising a long-term strategy for IT talent development that focuses on project management.

Companies are well aware of the transformational potential of the latest technology applications, and IT has increasingly become a critical component of business operations to harness the power of new tools and support ambitious new business strategies. Executives are setting their sights on big data projects in particular: according to a 2014 Gartner report, more than three-quarters of companies planned to invest in big data projects through 2015.<sup>1</sup> Accordingly, data scientists, who represent the front lines of data analytics projects, have received the most attention. In 2012, *Harvard Business Review* famously dubbed data scientist as “*the sexiest job of the 21st century*.” The latest Strayer@Work Skills Index reveals that demand for data science skills (including knowledge of analytics software such as Hadoop, Python, Puppet, and R) is currently outpacing supply by 9 to 14 percent. Moreover, recent research by WANTED Analytics found a steep increase in the demand for positions with a big data component.<sup>2</sup>

<sup>1</sup> Survey analysis: *Practical challenges mount as big data moves to mainstream*, Gartner, September 2015.

<sup>2</sup> Louis Columbus, “Where big data jobs will be in 2015,” *Forbes*, December 29, 2014 (<http://www.forbes.com/sites/louiscolombus/2014/12/29/where-big-data-jobs-will-be-in-2015/#2715e4857a0b544eaeab404a>).

However, the far more serious skills gap is in IT project management, and this shortfall has the potential to hobble a company's operations. The Strayer@Work Skills Index identified a shortage in performance management (24 percent), resource allocation (22 percent), and scheduling (19 percent)—all critical for the successful completion of IT projects. This shortfall helps to explain why so many IT projects flounder. For every high-profile tech project that struggles—think [healthcare.gov](http://healthcare.gov)—multiple efforts face similar challenges, at a steep cost. A McKinsey & Company study found that large IT projects run 45 percent over budget and 7 percent over time, while delivering 56 percent less value than predicted. The larger the project and longer the timeline, the more likely it is to go over budget. Software projects run the highest risk of cost and schedule overruns, and rollouts of organization-wide platforms such as enterprise resource planning (ERP) and customer relationship management (CRM) systems can be particularly thorny.

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As companies scramble to capture the benefits of more powerful software and systems, they must develop a comprehensive strategy to develop the staff needed to manage these projects and support IT strategy and operations.

### THREE BARRIERS TO TALENT DEVELOPMENT

Project management of IT projects requires employees to have multiple skills: not just facility with budgets and timelines, but also the ability to engage with and influence a wide range of stakeholders. Despite this role's importance, companies have found it difficult to attract, retain, and develop employees with these skills for several reasons.

**Rapidly evolving and emerging technologies.** The pace of technological advancements makes it difficult for IT staff to maintain the requisite knowledge to manage implementations effectively. Candidates with specific technical skills in areas such as big data are already in high demand, so they have less incentive to develop project management skills to land lucrative jobs.

**Lack of career path.** IT staff are typically hired for their knowledge and experience in specific areas, with career paths and training an afterthought. As companies increasingly rely on IT contract labor to fill specific needs, the pipeline for middle management candidates has narrowed.

**Insufficient IT curriculum and training.** Most undergrad IT programs don't emphasize project management, and certification programs focus primarily on new technical skills that enable graduates to transition into

the workforce. The Skills Index indicates a surplus of candidates with skills in traditional IT such as server and systems administration and technical writing.

In addition, many IT departments are siloed, with staff focused primarily on technical execution. As a result, their understanding of broader business objectives and exposure to other departments is limited to interactions related to IT tasks or projects.

## **CLOSING THE GAP**

So what actions should companies take to overcome the IT skills gap in project management? Given the technical nature of IT projects, it's not feasible to train experienced project managers so that they have the requisite knowledge. Instead, companies should apply established development approaches that have delivered results for other departments. First, senior management should identify IT staff with the potential and interest to step outside their more narrowly defined roles. Next, investments in targeted training for project management can give employees the foundational skills to go with their subject matter expertise. Last, embedding IT staff in other departments and rotating them on a regular basis can enable them to gain exposure to the broader enterprise and the business unit leaders who are vital to the success of large IT projects.

This approach requires companies to make a multiyear commitment to developing IT staff—an effort that might be a departure from their traditional functional focus on IT talent. Investing in a long-term professional development strategy will pay handsome dividends going forward in the form of more effective implementations and associated cost savings.