The 2014 Enterprise Application Market in Higher Education
Human Resources Information
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What You Need to Know

Human resources (HR) information systems are part of the backbone of enterprise resource planning (ERP). Typically, institutional ERP systems—student information, financial management, financial aid, and HR information—are among the oldest and most customized systems due to the difficulty involved in replacing systems that are part of the core business function of the institution. For U.S. institutions, HR information systems are the fourth oldest among 20 core IT systems, with an average year of implementation of 2002, and are the fifth most customized, with 79% of institutions reporting at least some customization in their HR information system (figure 1).

Figure 1. Characteristics of core information systems

*Rate of change is an indicator of how rapidly a system area is changing. It is a composite score based on year of current implementation and on plans to implement new systems or replace existing ones. Systems with the highest rate of change typically have been implemented recently or are expected to be implemented or replaced soon.
What keeps HR information systems several places above the other three ERP components on our rate-of-change index is the relatively high proportion of institutions that plan to replace their HR systems in the next three years—nearly one-sixth (15%, figure 2). This makes HR information systems the fifth most likely system to be replaced in the next three years.

Figure 2. System provision and plans for change for HR information systems
Market Share

With just over three-quarters of the market (78%) using a solution from one of the top 3 vendors—Ellucian, 43%; Oracle, 29%; and ADP, 6%—the human resource information system market is fairly homogeneous (figure 3).

![Market Share Chart]

**Figure 3. 2014 HR information system market**
Market Shift: 2011–14

In 2011, only 12% of institutions planned to replace their HR system in the next three years, and in the years since, just 7% of respondents have indeed replaced their system. Small changes from 2011 to 2014 in the proportions of the market that each vendor holds reflect this reality (figure 4). The largest change in three years is an increase of two percentage points in market share for Ellucian Colleague HR. Although 15% of institutions plan to replace their HR system in the next three years, there are not a lot of new players in this relatively mature market space. Even if all of those institutions follow through on replacing their system, the overall distribution of the market may not shift significantly. Rather, institutions might simply trade vendors to try to optimize system features.

Figure 4. 2011–14 HR information system market (top 4 solutions and homegrown)
Management Strategy

Although most institutions (75%) still opt for an in-house implementation, about one in eight (13%) have opted for a SaaS implementation, which may provide benefits such as cost savings and scalability. Of the top 4 solutions (listed in order of market share in figure 5), ADP is most likely to have a SaaS implementation (45%).

Figure 5. Management strategies in use for top 4 HR information system solutions
Deployment Strategy

From time tracking to talent management, today’s staff, prospective hires, and human resources managers expect HR information systems to be platform agnostic and mobile friendly. About one-quarter of institutions (24%) are using responsive web design, and 16% are deploying their HR systems through application virtualization. Mobile deployment is still emerging, however—more than half (57%) of institutions have indicated that they use another deployment strategy, typically traditional client server or web applications. Of institutions using one of the top 4 solutions (listed in order of market share in figure 6), those with Ellucian Colleague HR or ADP are most likely to have responsive web design (both 31%). Institutions with Ellucian Banner Human Resources are most likely to use application virtualization (22%).

![Deployment strategies in use for top 4 HR information system solutions](image-url)

Figure 6. Deployment strategies in use for top 4 HR information system solutions
"Nothing ventured, nothing gained" aptly describes Cornell University’s HR system. In 2010, Cornell reached a turning point for its homegrown HR system. Locally inputted transactions flowed electronically to the centralized HR system for manual reentry into Cornell’s PeopleSoft Campus Solutions system. Shadow systems proliferated to compensate for the HR system's operational gaps. A university streamlining initiative aimed to lower operational costs and enhance system efficiencies. The time seemed right to pursue a new HR solution. The question was which to go: Stay the course? Upgrade PeopleSoft? Try something new? After due diligence, Cornell chose the third option and partnered with Workday to be an early adopter of its cloud-based HR system—and one of its first higher education customers.

This strategy represented a seismic shift, moving from on-site to cloud-based hosting and from a custom-made solution to a multitenancy environment. A single version of Workday exists across all of its customers, each of whom has the flexibility to configure the application based on its own business needs. Workday’s unified-platform approach also removes the complexity of managing disparate applications. The suite of integrated human capital management applications includes benefits, talent management, recruiting, payroll, and time tracking. “We look at building a new application as a last resort,” explained Seth P. Brahler, director of HR information systems (HRIS) at Cornell. “We look to leverage Workday as much as we can.”

The key to this strategy is partnerships. Over the ensuing three years, Cornell worked closely with Workday and other higher education partners to tailor the vendor’s HR system for higher education—for instance, they built an academic information system. Cornell went live in March 2013 on Workday’s HCM/Payroll system, and vendor partnerships still influence its system design today. In the Workday Community customer portal, HRIS can propose HR system features and improvements, which are crowdsourced by the entire Workday customer base. Design partnerships enable HRIS to review new or improved system functionalities before general release. Workday monitors the customer inputs and modifies the system accordingly. Among Workday’s external partnerships is one with a benefits provider; if a Workday customer chooses to work with one of Workday’s external providers, the integration is already “baked into” the system, simplifying adoption of those partners’ external services.

Cornell HR system users are the other critical partners. Before the university’s adoption of Workday, HRIS followed a “build it and they will come” implementation strategy: HRIS implemented the system, released it to the campus, and
hoped it met users’ needs. But for Workday to succeed at Cornell, HRIS realized it needed to cultivate partnerships and buy-in with the functional users, a challenging proposition given that every college and unit managed its own IT and HR group. “We set forth the expectation that Workday is not an HR system, not an IT system, but everyone’s system,” stated Brahler.

HRIS took a number of steps accordingly. For example, project sponsors included not only HRIS but also one of the college HR directors. HRIS eliminated itself as the HR system’s transactional middleman, empowering the end user instead. Together, Cornell University Information Technologies (CIT) and HRIS inventoried all relevant HR-related systems—including shadow systems—and their PeopleSoft connections and used this blueprint to configure Workday optimally for the institution. Today all colleges and units own their HR data, access it on demand, and input it directly in the system of record. Reinforcing the HRIS/user partnership, constant, two-way communication allows users to receive adequate support and provide feedback about their functional needs.

Report development also required campus involvement. To start, an inventory of HR reports revealed the need to streamline numerous unused, duplicate, or area-customized reports into a set of standard reports for everyone’s use. HRIS held one-hour “show and tell” meetings with relevant HR, college, unit, and other users to customize Workday’s out-of-the-box reports. Rather than discussing cosmetic changes, participants described their business needs, and HRIS designed the report during the meeting for immediate feedback and eventual cross-campus agreement. The “show and tell” strategy facilitated leader and governance buy-in by demonstrating new system capabilities live rather than on a PowerPoint slide. HRIS still holds monthly report-design sessions, and today the HR system maintains roughly 200 reports, all tagged by functional areas, such as benefits, staffing, and students. It’s an ongoing efficiency quest that continues to reap rewards for Cornell.

An outgrowth of this report-design project is greater analytics capability. Homegrown HR system reports examined operational data, but the new focused, highly visual reports, combined with Workday’s drilldown features, enable users to slice and dice information to support decision making. As a result, the university adopted Workday’s online performance reviews after seeing their underlying analytics capabilities.

Overall, a cloud-based HR system provides an opportunity to evaluate current processes and identify possible operational efficiencies. But it requires a willingness to embrace change, too. “If you plan on porting your current processes into the cloud-based system, you’re not going to gain any efficiencies,” stated Brahler. Postimplementation, HRIS evaluates Workday’s weekly enhancements to identify further process efficiencies.
Conclusion

Most HR information systems are aging and highly customized; change may be afoot for this traditionally stable market, however, as institutions consider upgrades to their ERP backbone. New system implementations bring the possibility of cost reduction through cloud sourcing as well as flexibility through the introduction of mobile access. Vendor partnerships, as with Cornell and Workday, introduce the opportunity to co-create solutions that scale institution-specific requirements. Upgrading or replacing a core system can be an intimidating undertaking. Nevertheless, the benefits are clear, and institutions are beginning to take on this challenge.

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Note

1. Vendor-hosted options include infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS).

About the Enterprise Application Market Series

The Enterprise Application Market report series from the EDUCAUSE Center for Analysis and Research focuses on data from the EDUCAUSE Core Data Service (CDS) to better understand how higher education institutions approach various information systems. Market share and system rate of change are among the metrics highlighted in this series. Information provided for this series was derived from Module 8 of CDS, which asked several questions regarding information systems and applications. For reports in the 2014 series, responses from 560 institutions were analyzed. Only U.S. institutions are represented in this series.