UCSB Audit and Advisory Services

Internal Audit Report

UCPath
Limited Scope Project Progress Review

December 10, 2018

Performed by:
Antonio Mañas-Melendez, Acting Associate Director
Laurie Liao, Senior Auditor

Approved by:
Ashley Andersen, Audit Director

Report No. 08-18-0017

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University of California, Santa Barbara

December 10, 2018

To: Matthew Erickson, Director, Enterprise IT Project Management Office
       Maria Ayllon, UCPath Project Manager

       Enterprise Technology Services

       Distribution

Re: **UCPath: Limited Scope Project Progress Review**
       Audit Report No. 08-18-0017

As part of the 2017-18 audit services plan, Audit and Advisory Services has completed a review of the University of California, Santa Barbara (UCSB) UCPath project. The primary purpose of this audit was a limited review of the status of UCPath at UCSB, including determining whether there are adequate measures in place to help ensure successful implementation according to the established timeline and whether the project is aligned with IT project management best practices.

Stakeholders interviewed as of May 2018, were generally positive about the recent direction and progress of the project with some concern regarding the volume of work to be completed before go-live. All stakeholders were confident about meeting the proposed go-live date. We found overall, adequate project management practices in place. Even with these positive factors, our work highlighted some areas that may need additional improvements after go-live.

Detailed observations and management corrective actions are included in the following sections of the report. The management corrective actions provided indicate that each audit observation was given thoughtful consideration and that positive measures have been taken or planned to implement the management corrective actions. We sincerely appreciate the cooperation and assistance provided by Enterprise Technology Services personnel, executive sponsors, and other UCPath stakeholders during the review. If you have any questions, please feel free to contact me.

Respectfully submitted,

Ashley Andersen
Director
Audit and Advisory Services

Enclosure

Distribution:

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<u>Finance and Resource Management</u>
Jim Corkill, Controller and Director, Business & Financial Services

<u>Administrative Services</u>
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<u>Academic Personnel</u>
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cc:

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PURPOSE

The primary purpose of this audit was a limited review of the status of UCPath at University of California, Santa Barbara (UCSB), including determining whether there are adequate measures in place to help ensure successful implementation according to the established timeline and whether the project is aligned with IT project management best practices.

This audit is part of our fiscal year 2017-18 audit services plan and is one of a series of audits and advisory service projects designed to support UCPath efforts.

SCOPE, OBJECTIVES, AND METHODOLOGY

The scope of this audit was limited to UCPath activities and documentation available through August 2018. The audit included an initial assessment of risks in the following areas:

- Governance – Adequate governance processes are in place and operating, including defined ownership, steering committee(s), campus department representation in governance processes, and communication strategies.

- Project Management – Appropriate practices that incorporate the following phases:

  o Project Plan – An approved project plan has been developed and includes periodic reporting and sufficient planning for business process integration consistent with the project's timeline.

  o Deployment and Readiness – Organizational readiness initiatives are in progress to address project and owner resources, system dependencies, and change management.

  o Testing – A formal plan for testing has been developed and deliverables have been obtained.

  o Training – A training plan has been formalized which covers campus subject matter experts and end users.

  o Project Documentation – Project documentation have been generated and consolidated.

The objectives selected for this review were to determine whether:

- There are adequate measures in place to help ensure successful implementation according to the established timeline.

- The project is aligned with general IT project management best practices by covering areas such as project plan, project documentation, functional design, testing, training, and other areas.

To accomplish our objectives, our work included interviews, review of documentation, and other steps, including:

- Researched and reviewed previous UC audits and advisory work related to UCPath, including:

    o *UCPath Limited Scope Project Progress Review* – UCSB audit report, dated July 26, 2017.
    o *UCPath Limited Scope Project Progress Review* – UCSB advisory service report, dated May 16, 2016.
    o *UCPath Pilot Deployment Readiness* – UC Merced advisory service report, dated November 28, 2016.
    o *UCPath Pilot Deployment Assessment – Checkpoint 2* – Office of the President advisory service report, dated November 16, 2017.

- Reviewed and analyzed UCPath documentation available as of August 2018, including the governance model, local implementation strategy, project plan, staffing plan, status reports, campus process inventory, risk assessments, future state operating model documentation, and various other plans, communications, and functional documents.

- Gained and documented an understanding of the project's status through detailed interviews with steering committee members, the project manager, Enterprise Technology Services (ETS) personnel, and other stakeholders.

- Performed and documented an assessment based on the result of our interviews, review of project documentation, and other work.

This advisory service was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

BACKGROUND[1]

Launched in January 2010, the University of California Payroll, Academic Personnel, Timekeeping, and Human Resources (UCPath) Project is a coordinated effort between UCOP and each of the UC campuses and medical centers. UCPath will support over 200,000 UC employees and is the largest administrative project undertaken in UC history. The goal of the project is to deploy a single payroll system and a single human resources system across all ten campuses and five medical centers that meets the core needs of each location, while capturing the efficiencies, improved data, and cost savings associated with unified systems.

UCPath will require numerous new and modified human resources and payroll-related business processes, as well as the implementation of a new information system. The project encompasses three main areas:

- Implementing Oracle PeopleSoft HCMS 9.2 (UCPath System).
- Streamlining and standardizing business processes.
- Centralizing transactional activities at the new UCPath Center (UCPC) established in Riverside, California.

UCPath will roll out in stages, starting with the UC Office of the President (UCOP) on November 30, 2015. Since the initial launch, UC Riverside, UC Merced, and the Associated Students UCLA have all deployed UCPath. UC Santa Barbara and UCLA are the most recent campuses to go-live in September 2018. The next locations to implement UCPath will be UC Davis, UC Berkeley, UC Irvine, and UC Agriculture and Natural Resources (ANR) in early 2019. The final group to

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[1] Source: Campus PMO website, project documentation, and interviews with the UCPath managers and stakeholders.

implement UCPath will be UC San Diego, UC San Francisco, UC Santa Cruz, Lawrence Berkeley National Laboratory, and UC Hastings in fall 2019. These groups all include a highly diverse employee population, including academic and health system employees.

The President of the University of California and UC Santa Barbara Chancellor approved the UCPath deployment at UCSB on August 30, 2018. This approval was informed by a series of readiness assessments and ratifies the "go" decision made by executive sponsors.

Table 1 includes major milestones to be accomplished by UCPath.

Table 1	UCSB Deployment Schedule
Description	**Completion Date**
Future State Process Designs	June 2017
Data Conversion	June 2018
Testing	July 2018
Pre Go-Live Training	September 2018
Deployment/Cutover	September 2018
Stabilization	June 2019

Source: UCPath Project Manager, ETS.

Future State Process Designs

The Future State Process Designs (FSPD) process is the part of the project focused on identifying and documenting campus processes in the scope of the project. The FSPD is considered the most important functional part of UCPath. UCSB has identified 126 relevant functional processes.

Data Conversion

The UCPath conversion period consists of taking Legacy System data and loading it into UCPath and is one of the key activities transitioning from Payroll/Personnel System (PPS) to UCPath. Campus data conversion validation tasks began in April 2018. A validation team comprised of specialists from Human Resources (HR), the Office of Academic Personnel (APO), Business and Financial Services (BFS), and the UCSB Project Manager Office (Local PMO) teams worked through go-live to complete a detailed comparison of employee data between the PPS and UCPath systems. The team focused on validating the data necessary to produce accurate paychecks in UCPath after go-live and analyzed data in the Workforce Administration, Benefits, Payroll, Absence Management, and Commitment Accounting / General Ledger modules in UCPath. In order to improve UCPath paycheck accuracy over the duration of the validation effort, items identified by the validation team were either cleaned up in the legacy system, addressed with a conversion design change, or were manually fixed in UCPath as part of the cutover.

Testing

Performing testing helps ensure that all portions of the system work correctly as specified and work together. Often portions of a system are initially developed and tested as independent pieces, and the system tests must ensure that the entire system works. A schedule should be established for the steps identified in the test plan. The campus testing plan was comprised of the following test stages:

- Integration Testing (February – July 2018) was comprised of two iterations, the first of which focused on technical connectivity. The second iteration tested over 50 end-to-end business processes to verify that the UCPath system accommodates the way UCSB departments will conduct their business after go-live.

- Payroll Parallel Testing (April – July 2018) ensured that payroll was being accurately calculated by the new system. During parallel testing, the legacy system data was compared to the data in the new system to identify any errors. The campus performed two iterations of Payroll Parallel Testing.

- User Testing (July – August 2018) was the last phase of the software testing process. During user testing, end users tested the software to make sure it can handle required tasks in real-world scenarios, according to specifications. User testing would be one of the final critical software project procedures that must occur before new technology is rolled out.

Training

Local PMO, HR, APO, and BFS designed a plan to address training needs. UCPath training allowed learners to take self-paced, online courses at their convenience, as well as participate in more focused training and support, such as instructor-led, classroom training and open labs.

The training team focused its attention on the business critical tasks performed in UCPath and building a curriculum around those system steps and their associated policies. Role-based training was provided for all UCSB individuals who perform specific tasks in UCPath, including initiators, approvers, and inquiry-only users. A series of recommended and optional UCPath courses, referred to as a learning path, was provided to each UCSB learner assigned a role in UCPath.

Deployment/Cutover

The cutover is the process of transitioning from a legacy system to a newer system from a business and system perspective, covering the overlap from when the old system is shut down to when the new system is live. Campus cutover included critical tasks related to communication, security access, conversion validation, data processing, integration, and production support. Cutover was split into three phases:

- Pre Cutover: Includes readiness activities for the PMO, production and location teams leading up to actual execution.

- MO Conversion: Includes the conversion run, all pre and post conversion tasks and manual cleanup and all activities related to the first payroll after go-live for the population paid monthly.

- BW Conversion: Includes the conversion run, all pre and post conversion tasks and manual cleanup and all activities related to the first payroll after go-live for the population paid biweekly.

Stabilization

Stabilization refers to the period of time after go-live with increased levels of support are available from UCOP, the UCSB project team, the UCPath Center, and UCSB HR, Academic Personnel, and Payroll Offices. Stabilization consisted of making sure all UCSB service providers are ready to support UCPath and are able to operate independently. At UCSB, the Stabilization period will run through June 2019 and hyper care support and on premises labs will stop on December 2018.

UCPath Center

The UCPath Center (UCPC) is the UC systemwide shared services center in Riverside, CA. UCPC will consolidate routine transaction processing and employee support for some tasks in the areas of payroll, benefits, absence management, compensation, and workforce administration. Services include:

- Answering basic questions in these areas
- Conducting pre-payroll and post-payroll processing
- Managing benefit enrollment and administration
- Processing job data, pay changes and maintaining employee records
- Facilitating the set up and maintenance of leave of absence program structure

UCPC is the first point of contact for employees and provides assistance to UC faculty and staff via UCPath portal (cases), telephone, e-mail, fax, and regular mail.

UCLA and UCSB go-live will test the capacity of UCPath Center to handle support services. The UCPath Center has ramped up operations to serve more than 60,000 employees at UCSB and UCLA, in addition to 18,000 employees at UCOP, UC Riverside, and UC Merced.

SUMMARY OBSERVATIONS

Interviewed stakeholders in May 2018, were generally positive about the direction and progress of the project. However, they expressed some concerns regarding the volume of work to be completed before go-live. All stakeholders were confident about meeting the proposed go-live date. We found overall, adequate project management practices in place. Even with these positive factors, our work highlighted areas of concern that may need additional improvements, such as project documentation and post implementation incident management practices.

Detailed observations and management corrective actions are detailed in the remainder of the report.

DETAILED OBSERVATIONS AND MANAGEMENT CORRECTIVE ACTIONS

A. Governance and Communication

Campus Governance and Representation

The results of our stakeholder interviews suggest that the establishment of local UCPath governance structures are overall adequate. Oversight of the UCPath project includes the following key groups:

- Executive Sponsors
- Steering Committee

In addition to these groups, the Strategic Advisory Committee serves as a conduit of information between department leadership, staff, and faculty and the Local PMO and Campus Steering Committee. We did observe broad representation of campus departments in this committee, which is a key group responsible for providing recommendations to the Local PMO and the Steering Committee.

Communication

Communication to campus has been very intense during the last stages of the project in order to guarantee campus personnel are prepared for the new changes. Communication initiatives are also supported by the Local PMO, Human Resources, Academic Personnel, campus IT departments, and Business and Financial Services personnel in order to provide a wider coverage. Communication includes, but is not limited to:

- Centralizing UCPath information, communication, and training in a website specific for UCSB
- An awareness training plan for all affected employees
- Town Hall announcements and meetings
- Mailed distribution
- Calendar/timeline of events
- Electronic newsletters
- Presentations and videos

We were informed that additional communication is being issued for academic departments.

B. Project Management

Interviewed stakeholders in May 2018, were generally positive about the direction and progress of the project. However, they expressed some concerns regarding the volume of work to be completed before go-live. All stakeholders were confident about meeting the proposed go-live date. We found overall, adequate project management practices in place. However, our work highlighted some areas that may need additional improvements. The fast pace of the project combined with the complexity, size, and limited resources have made project management challenging.

Project Documentation

Functional requirements and design have been adequately identified and documented. Interfaces and dependencies with other campus systems have been also identified. The majority of system-wide project documentation was located on a centralized SharePoint, and campus documentation

was in Box[2] and Jira[3]. However, we noted the project has generated an enormous amount of documentation. In some cases, project information is spread over several documents or versions of the same documents. While we understand that this is unavoidable for a project of this complexity, size, and timeline, it may be beneficial to consolidate documentation in a more comprehensive format.

Project Plan

A project plan was defined to include key elements of the project implementation such as testing, training, cutover, and communication plans. The plan was updated to provide current information for communications with stakeholders and the campus. Some of the most significant areas included:

- Communication Plan: As mentioned, the final stages of the project have required ongoing communication initiatives. These activities have been scheduled and tracked as part of the project plan.

- Testing Plan: An testing plan has been developed and performed in several iterations to identify issues from data imported from PPS, corporate interfaces, and business process integration, with special attention to critical business processes.

- Training Plan: An extended user training plan has been developed and implemented to include webinars, instructor-led training, scenarios, presentations, and other methods.

- Cutover Plan: The cutover plan includes identifying critical tasks required for go-live to provide a smooth transition to UCPath. Resources were identified and assigned to these tasks, in which percentage of completion was also tracked.

- Roll Back Plan: We were informed a roll back plan was presented to the campus days before go-live.

Adequacy of Resources

Limited resources have been one of the key challenges of the project. Campus personnel have been working concurrently in multiple work streams while performing their full job responsibilities and participating in additional system-wide initiatives, such as I-9 Tracker[4], Kronos deployment, and Career Tracks[5] implementation, in an accelerated timeline. In addition, 11 resources directly related to UCPath implementation have left the project since May 2018. As a result, burnout for campus resources was a major concern.

In the initial stages of the project, technical expertise that includes Mainframe, PeopleSoft, and institutional knowledge was generally unavailable. Management approved the addition of experienced consultants specializing in project management and PeopleSoft as part of the UCPath project team. These resources faced the challenge of gaining institutional knowledge and perspective in a very short period of time. Data conversion, testing, and training were some of the areas with highest resource needs.

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[2] Box provides a secure, cloud-based storage and collaboration service to all members of the UC Santa Barbara community.
[3] Jira is a proprietary issue tracking product developed by Atlassian which allows bug tracking and agile project management.
[4] I-9 Tracker is a new tool to create and track I-9 forms digitally.
[5] Career Tracks is a job classification system for non-represented staff.

Even though more resources were incorporated to provide better coverage to critical work streams, the aggressive project timeline required that the Steering Committee and the project team prioritize certain activities over others, in order to be ready for go-live. Additional work after go-live could be necessary to address issues in less critical business processes and some interfaces with campus shadow systems.

Training

Training was intended to be a requirement prior to authorization in UCPath. We noted UCPath project management performed the following steps:

- Key campus personnel were identified and assigned to required training.
- Training was provided to PeopleSoft Human Capital Management (HCM) through train-the-trainer sessions and to functional users through instructor led training (ILT) and webinars.
- Training was regularly tracked, and periodic updates on progress were provided to the UCPath project team on a regular basis.

The Chief Information Officer (CIO) informed us that the training did not have a live test area in which users could conduct synthetic transactions. Training was focused on mass communications and not enough on support processes and incident management.

Testing

The project has completed three main testing areas including integration testing, payroll parallel testing, and user testing. Repetitive processes were defined with the use of standard templates and identified testers. Even with these positive factors, our work highlighted the following specific areas of concern that may need additional improvements:

- The second iteration of integration testing was performed concurrently with payroll parallel testing.

- Part of the second iteration of payroll parallel testing was performed concurrently with the first iteration.

- Interfaces and dependencies with other campus systems were classified in two tiers based on direct interaction with PeopleSoft and PeopleSoft Supply Chain Management (SCM). Tier 1[6] interfaces were evaluated as part of the integration testing. The development and testing of Tier N[7] interfaces have been the responsibility of the departments, and the Local PMO has not tracked current downstream impact. Additional work could be necessary to validate that UCPath interfaces are fully operational including the interface with Kronos and some Tier N interfaces.

- Payroll Parallel Testing and Integration Testing were performed with a limited sample of converted data.

- The results of the test of 11,034 checks, presented to UCSB sponsors on August 8, highlighted that:

  o 92,2% of the checks had gross pay variances of less than $10 and only 3% of them, gross pay variances were over $250.

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[6] Tier 1: Interfaces currently connected with UCPath.
[7] Tier N: List of downstream interfaces that do not directly interface with UCPath.

- o 76,4% of the checks had net pay variances of less than $10 and only 3.4% of them, net pay variances were over $250.

- The status of User Test, presented in the report UCLS-UCSB Deployment Subcommittee on August 23, highlighted that:

  - o 370 payroll test cases passed, 8 failed and 31 were still in progress.
  - o 29 of 138 defects identified during user testing were open.

- User testing was performed for the purpose of operational readiness testing, but it did not require user acceptance. This test was a collaboration between UCSB, the Central PMO, and UCPath Center.

Data Conversion

As of August 2018, data conversion met the target for dress rehearsal[8] for a total of 98%. However, this does not include manual conversions. We also observed that by the end of August there were remaining issues in the conversion testing.

Post-Implementation Support

After go-live, the campus will enter three months of hypercare. This period consists of providing additional technical and functional support to the campus by the Central PMO and Office of the Chief Information Officer (OCIO). A series of actions have been planned to support all campus users after go-live. We noted:

- Stabilization is support largely being handled by the UCPath Center (UCPC). Campus will provide support by acting as a liaison in coordinating work tickets or communicating common issues to the UCPC:

  - o First Escalation: Supervisor or Department Business Officer, UCSB Benefits Office, or UCPC
  - o Second Escalation: UCSB Payroll Office, UCSB Timekeeping Service Team (ETSC), or UCPC
  - o Third Escalation: UCPC

- Post go-live training will begin and will consist of support labs, which include drop in sessions for specific issues, and go-live refresher training, which requires users to sign up ahead of time for specific transactions.

The CIO informed us that his post-go-live major concern was that there is not a single incident commander, and this causes great confusions as there are at least five different agencies (AP, HR, BFS, and OCIO, and UCPath Center) involved in processing or dealing with errors or employee and department requests.

Security Access Control

Access control has been reviewed and approved by stakeholders. Department security administrators will authorize changes for functional users. Departments had a special interest in limiting default access to pre-defined sets of components and data.

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[8] Trial deployment of the project.

Recommendation

We recommend consolidating project documents in a more comprehensive document and evaluating an incident management plan to assure that all organizations involved in post implementation support efficiently manage post implementation requests and errors. We also recommend the project plan be evaluated for additional tasks needed to complete the remaining part of the projects. Some of the remaining areas could include:

- Data conversion fine tuning
- Interfaces with other campus systems, with a special focus on Tier N interfaces.
- Post implementation training
- System adjustment and configuration
- Addressing any remaining issues
- Additional testing as needed

Management Corrective Actions

The Office of the CIO will consolidate project documentation and evaluate a plan to complete the remaining part of the project that needs additional support. The Office of the CIO will work with the other organizations involved in the post implementation support to evaluate an incident management plan to assure post implementation requests and errors are efficiently reported and managed.

Audit and Advisory Services will follow up on the status of these issues by March 31, 2019.