



IT PROJECT MONITORING REPORT

**Kansas Department of Labor
OSCAR IT Project
Quarter Ending June 30, 2018**

CURRENT STATUS: SATISFACTORY

**A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas
September 2018**

Legislative Division of Post Audit

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Justin Stowe, Legislative Post Auditor

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To: Members, Legislative Post Audit Committee

This report contains the findings from our third monitoring report of the *Kansas Department of Labor OSCAR IT Project (Quarter ending June 30, 2018)*. The audit team included Alex Gard (Principal IT Auditor) and Katrin Osterhaus (IT Audit Manager).

We would be happy to discuss the findings and conclusions presented in this report with any legislative committees, individual legislators, or other state officials.

Sincerely,

A handwritten signature in black ink that reads "Justin Stowe". The signature is written in a cursive, flowing style.

Justin Stowe
Legislative Post Auditor

This work was conducted by Alex Gard, PMP, CISA; and Katrin Osterhaus, PMP, CISA, CISM, CIA, CGAP. If you need any additional information about the findings, please contact Alex Gard at the Division's offices.

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Overview of the OSCAR Project

The Purpose of the OSCAR Project is to Modernize the State's Workers' Compensation System

Kansas has a traditional workers' compensation program which requires employers to maintain insurance coverage for their employees in the case of workplace accidents. The Department of Labor's current core information system—Biltmore—collects and stores information about workers' compensation insurance and related claims against that insurance. The agency uses information from Biltmore to conduct fraud investigations, hold administrative hearings, and administer the workers' compensation system.

Biltmore has been in production since August 2001 and has become outdated. The system has limited audit and history capabilities, requires manual status updates, and is not integrated with some of the agency's other systems, such as its imaging system. The Department of Labor's Online System for Claims Administration and Research (OSCAR) project will replace and modernize its outdated Biltmore system.

The Current OSCAR Project Started with a Separate Planning Project Called DigiComp

The effort to update the agency's workers' compensation system was split into two parts, which were handled as two distinct projects. The planning process for the workers' compensation modernization project was carved off and handled as its own distinct project, known as DigiComp. DigiComp's overall goals were to identify the new system's requirements and to find a suitable company through the state's request for proposal (RFP) process to build it. The DigiComp project started in early 2014 and was completed in the fourth quarter of 2016 for a cost of about \$580,000. The second "OSCAR" project comprises the actual construction of the new system and is estimated to cost about \$8.5 million.

Splitting large projects into smaller ones is a common practice, and there are several reasons why an agency might do this. Smaller projects with short timelines are easier to manage than larger projects with a long timeline. If a large multi-year project does not have a dedicated funding source, splitting it up into multiple parts can allow the agency to be more agile with its finances. Finally, it can be less expensive for an agency to make changes to a project's scope or schedule when the project is smaller.

***We Selected the
OSCAR Project for
Continuous Monitoring
Due to its Criticality
and Cost***

K.S.A. 46-1135, directs our office to conduct continuous audits of ongoing information technology projects by state agencies, including systems development and implementation. Our primary objective is to identify, as early as possible, when a project is at risk of failure due to scope, schedule, cost, or quality problems, and to communicate that risk to the appropriate level of project leadership, legislative bodies, or other stakeholders to get those projects back on track. Our secondary objective is to evaluate whether monitored IT projects have adequately planned for the implementation of required security controls.

In December 2016, we selected the OSCAR project from a total of 25 planned and active projects by state agencies. We chose the OSCAR project for several reasons, including the project's estimated cost, its criticality for the department and its stakeholders, and the failure of the department's previous unemployment insurance modernization project—which was ultimately cancelled in 2011.

Our Monitoring Reports Evaluate the System Development and Implementation Status of the Project

Authorized under K.S.A. 46-1135, our audits of ongoing information technology projects evaluate the health of the project regarding system development and implementation, and the project's adherence to relevant state statutes, Information Technology Executive Council (ITEC) policies and guidelines, Kansas Information Technology Office (KITO) templates and instructions for IT projects, and international project management standards and guidelines.

As part of our monitoring efforts, we reviewed project documentation and read relevant EPMO reports to understand and familiarize ourselves with the project. We also attended key communication meetings (e.g. status or steering committee) from April 1, 2018 through June 30, 2018 and reviewed additional project documents as they became available. Lastly, we interviewed members of the project team and steering committee as necessary.

Due to their continuous nature, these audits are not conducted in accordance with generally accepted government auditing standards.

We provided the draft report to the Department of Labor on August 10, 2018. The department's response is included as ***Appendix A***.

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LPA Assessment of the OSCAR Project (as of June 30, 2018)

Overall Project Status:
SATISFACTORY

We determined the overall project health for the OSCAR project to be in satisfactory status. We evaluated the project across four major areas: project scope, schedule, cost, and security. Except for security, these areas also are tracked by the Enterprise Project Management Office (EPMO), which has also been referred to as the Kansas Information Technology Office (KITO). *Appendix B* contains a glossary of frequently used abbreviations in this report. The scale below describes the categories we established for our assessment:

- **Satisfactory status:** The project generally meets applicable state laws, policies and guidelines, generally complies with project management best practices, and has no material issues in scope, schedule, cost, or security.
- **Caution status:** The project does not meet several state laws, policies or guidelines, has deviations or unrealistic milestones in scope, schedule, cost, or security, or has weak or insufficient mitigation plans for known issues which could result in project failure.
- **Unsatisfactory status:** The project is not in compliance with many state laws, policies or requirements, or has scope, schedule, cost, or security deviations that are sufficiently material and no mitigation plans, thus causing the project to be at significant risk of failure.

Appendix C summarizes the project measurement guidelines established by the Joint Committee on Information Technology. KITO uses these measures in their quarterly summary reports to determine whether active projects should be considered in alert or caution status.

Figure 1-1 on the next page provides a summary of our findings through the end of this monitoring period.

The following sections provide more details of our assessment in each of the four major areas we evaluated.

**Figure 1-1
Kansas Department of Labor's OSCAR Project
Summary of LPA Monitoring Findings as of June 30, 2018**

Area	Summary of Assessment	Satisfactory	Caution	Unsatisfactory	Informational
Scope	The Department has a process to review and approve change requests in line with best practices.	x			
	During this quarter, the OSCAR steering committee approved three change requests which affected the project's scope.	x			
Schedule	Performance metrics for the project show work appeared to be on schedule as of the end of the second quarter.	x			
Cost	During the second quarter, the project steering committee approved a change order which increased the overall project cost by \$286,000.	x			
	Performance metrics for the project show spending appeared to be on track as of the end of the second quarter.	x			
Security	Agency officials pushed back deadlines for security-related deliverables closer to the go-live date, increasing some risks to the project.		x		
	We chose not to evaluate the security plan further.				x
	Agency officials said a deferred review with the Social Security Administration (SSA) will not affect the system's go-live date.				x

Source: LPA review of project documents, interviews, and attendance of periodic project meetings

**SCOPE:
SATISFACTORY**

The Department has a process to review and approve change requests in line with best practices (satisfactory). Potential changes to project scope must go through an established change control process, which is an appropriate project management practice. CapTech briefs the OSCAR steering committee on potential change requests before they are submitted for approval. We continue to observe the department's active participation in monitoring the contractor's activities and progress and noted no signs of scope issues.

During this quarter, the OSCAR steering committee approved three change requests which affected the project's scope (satisfactory). We reviewed each of the change request documents and verified that they appeared to adequately inform the steering committee of requested modifications to the project scope. One of the three approved change requests included functionality to handle settlements which was not included in the project's original

scope of work, and several items from the backlog of desired features that had been identified through the requirements gathering and user testing processes. The other two approved change requests removed work segments that were originally planned and replaced them with other work segments from the backlog.

We did not evaluate whether the reasons for these scope changes were valid. Those decisions rest with the project's steering committee and the change control process. As a result, we are not offering an opinion on those decisions.

***SCHEDULE:
SATISFACTORY***

In our report covering the previous monitoring period (ending March 31, 2018), we listed the schedule in caution status due to two delayed deliverables for that quarter. We have since verified with agency staff those two deliverables have been received and approved at the start of this quarter.

Performance metrics for the project show work appeared to be on schedule as of the end of the second quarter (satisfactory).

The fixed-price contract with CapTech, which promotes timely deliverables, accounts for more than two-thirds of the project costs. During this quarterly monitoring period, the department received and approved five total deliverables—two from the previous quarter and all three of the expected deliverables expected to be completed in the second quarter. Performance metrics show the project is on schedule.

***COST:
SATISFACTORY***

During the second quarter, the project steering committee approved a change order which increased the overall project cost by \$286,000 (satisfactory). Unlike other change orders where planned work was removed to offset the cost of new work, this specific change order added work to the project. The new development track and associated deliverable increased the overall project cost to \$8.5 million. This represents an increase of less than 3.5% and therefore does not jeopardize this project being considered in caution based on Joint Committee on Information Technology project measurement guidelines. Therefore, agency staff do not plan to formally recast the project cost for the Enterprise Project Management Office (EPMO).

Performance metrics for the project show spending appeared to be on track as of the end of the second quarter (satisfactory).

This \$8.5 million project has several cost components, the largest of which is a \$6.3 million contract with CapTech. The department has made \$3.9 million in payments to CapTech for 20 deliverables that have been completed and accepted through the end of this monitoring period. Performance metrics show the project is about

4% under budget most likely because a deliverable was added in the most recent change order and has not yet been paid for. We do not have concerns in this area at this point.

**SECURITY:
CAUTION**

Project management standards include best practices for such things as product quality and management of stakeholders and project staff to help ensure projects have the best chance for success. We review those areas at the start of our monitoring activities and at a higher level throughout the monitoring period. We also specifically review whether project officials appropriately plan for implementing IT security requirements. Concerns we identify in any of these areas are reported in this section.

Agency officials pushed back deadlines for security-related deliverables closer to the go-live date, increasing some risks to the project (caution). In our previous report, we had some concerns with the project’s security plan: parts of the plan were incomplete or blank, lacked clear descriptions, and some controls appeared to be inconsistent with other project documents. For this reason and because the department did not meet its deadlines for other security-related deliverables, we had identified this area to be in caution status.

In its response, agency officials revised the due dates for its security-related milestones as shown in *Figure 1-2* below. As the figure shows, prior to the agency’s revisions, most of the deliverables were scheduled to be completed by the end of this monitoring period (June 30, 2018). By shifting the deadlines closer to the go-live date (late November 2018), the risk increases that project staff may not have sufficient time to adjust to or fix any issues identified in those security-related deliverables. This shift also increases the risk staff will feel pressure to produce security deliverables that are less robust or to overlook or downplay legitimate security concerns, so the project can stay on schedule.

**Figure 1-2
Agency Revisions to OSCAR's Security-Related Milestones**

Milestone	Original	Revised
System Risk Assessment	March 2018	Already submitted
Business Impact Assessment	March 2018	August 2018
System Security Plan	April 2018	October 2018
Role Based Access Control Model	June 2018	September 2018
Application Code Reviews	September 2018	November 2018
Vulnerability Scanning	As needed	As needed

Source: LPA audit report R-17-017.4, p. 14.

We chose not to evaluate the security plan further

(informational). Based on past discussions with agency officials, we think agency officials perceive the security plan primarily as documentary evidence that security controls were implemented, rather than a document used to shape security planning. Because we think the security plan is not being used to plan for security and because we have already pointed out our concerns about this to the agency, we decided not to evaluate it further.

Agency officials said a deferred review with the Social Security Administration (SSA) will not affect the system's go-live date.

(informational). In our previous report for period ending March 31, 2018, we indicated agency officials were in the process of coordinating a two-stage review with SSA because one of the system's features is to validate social security numbers for claims processing. During this monitoring period, agency officials told us staff would begin planning and building social security number-related modules and controls in the third quarter. Although a date had not been set, officials estimated they would begin completing the detailed questionnaire in August 2018 and thought the SSA onsite visit would occur in late October or early November.

Officials said that validating social security numbers was an important feature of OSCAR, but the system would go live with or without that functionality. They explained going live before SSA approval was possible because the workers' compensation system was not paid for with any federal funds, unlike other state systems (e.g. unemployment insurance). They also said that based on their experience, federal approval sometimes comes with a grace period during which a system may be operational even though it may not meet federal requirements. During that period, the agency is expected to fix any issues identified by the federal review.

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APPENDIX A

Agency Response

On Friday, August 10, 2018, we provided copies of the draft audit report to the Department of Labor. The agency agreed with the overall evaluation and project status but disagreed that the project is in caution status in terms of security because they said moving back several security-related deliverables was done to better align with the project and application development timeline.

We understand the Department's position but also contend that several deliverables, such as the Business Impact Assessment and a Role Based Access Control Model, do not necessarily depend on the application development. In addition, we think completing those deliverables during the application development could identify issues that may be useful in making adjustments to the application. As such, we continue to think delaying these deliverables creates additional risks to the project.

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GOVERNOR JEFF COLYER, M.D.
LANA GORDON, SECRETARY

August 24, 2018

Justin Stowe
Legislative Division of Post Audit
800 SW Jackson, Ste 1200
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Dear Mr. Stowe,

The Kansas Department of Labor received the draft report from Legislative Post Audit on August 10, 2018 for the OSCAR project. We have reviewed the draft report and findings as well as discussed them with Post Audit staff on August 9, 2018 and this letter constitutes our official response.

KDOL does not dispute any of Post Audit's evaluation of the overall health of the project as satisfactory rated. We also do not dispute any of the satisfactory findings related to scope, cost, schedule, and quality. However, we continue to disagree with the LPA caution status for security. Specifically, in response to LPA's comment of "agency officials pushed back deadlines for security-related deliverables closer to the go-live date, increasing some risks to the project" our response is the schedule for the security-related deliverables was revised to better align with the project tracks. The original timeline for the deliverables was inconsistent with the application development timeline.

KDOL would like to thank the LPA and their staff for their continued participation and feedback.

Sincerely,

A handwritten signature in cursive script that reads "Lana Gordon".

Lana Gordon, Secretary
Kansas Department of Labor

Itemized Response to LPA Recommendations

Audit Title: IT Project Monitoring Report - Kansas Department of Labor OSCAR IT Project Quarter Ending June 30, 2018

Agency: Kansas Department of Labor

	LPA FINDING	Agency Action Plan
1	SECURITY - Agency officials pushed back deadlines for security-related deliverables closer to the go-live date, increasing some risks to the project (caution).	The schedule for the security-related deliverables was revised to better align with the project tracks. The original timeline for the deliverables was inconsistent with the application development timeline.

APPENDIX B

Glossary of Frequently Used Terms and Abbreviations

The following list contains various abbreviations and a definition of those terms.

- **CITO - Chief Information Technology Officer.** K.S.A 75-7205 through K.S.A. 75-7207, established a CITO for each of the executive, judicial, and legislative branches of government. The respective CITO reviews and consults with each their branch agencies regarding information technology plans, monitors compliance with all information technology policies, and coordinates implementation of new information technology, among other duties.
- **CPI – Cost Performance Index.** A measure of cost efficiency expressed as the ratio of budgeted cost of work performed to the actual cost of work performed. If the result is greater than 1, then the project is under budget, which is the best result.
- **EPMO - Enterprise Project Management Office.** EPMO provides oversight of major IT projects. As part of its oversight role, EPMO collects quarterly summary reports to evaluate the progress of state agencies' IT projects to determine whether those projects are in good standing. EPMO and KITO are often used interchangeably.
- **ITEC - Information Technology Executive Council.** The 17-member Information Technology Executive Council is responsible for approval and maintenance of all information technology policies, IT project management procedures, the statewide technical architecture, and the state's strategic information management plan.
- **KITO - Kansas Information Technology Office.** KITO supports the statutory responsibilities of the Executive, Judicial, and Legislative Branch CITO's and the state's Chief Information Technology Architect by providing enterprise services across state government.
- **SPI - Schedule Performance Index.** A measure of schedule efficiency expressed as the ratio of earned value (how much work has been completed by a certain date) to planned value (how much work was supposed to have been completed by that date).
- **SSA – Social Security Administration.** A branch of the federal government responsible for administering and managing Social Security payments to the aged, poor, disabled, and unemployed, as well as their dependents and survivors. Some of the better-known programs under the SSA include retirement insurance, disability insurance, and Temporary Assistance for Needy Families (TANF).

APPENDIX C

JCIT Project Measurement Guidelines

JCIT Policy 2, approved by the committee in 1998, establishes many specific measures to evaluate state projects in active status. The table below enumerates those measures.

JCIT Project Measurement Guidelines		
Area	JCIT threshold	Condition
Critical Path	10%-20% behind schedule	The project will be considered in a caution status
Critical Path	20% or more behind schedule	The project will be considered in a red or alert status.
Task Completion Rate	Completion rate of 80%-90%	The project will be considered in a caution status
Task Completion Rate	Completion rate of 80% or less	The project will be considered in a red or alert status.
Deliverable Completion Rate	Completion rate of 80%-90%	The project will be considered in a caution status
Deliverable Completion Rate	Completion rate of 80% or less	The project will be considered in a red or alert status.
Cost	10%-20% deviation from plan	The project will be considered in a caution status
Cost	20%-30% deviation from plan	The project will be considered in a red or alert status.
Cost	30% or more deviation from plan	If costs are 30% higher than planned, serious consideration should be given to stopping the project. JCIT should find specific approval of the agency head and approval of a rationale that strongly supports continuation of the project. JCIT should consider recommending that an independent 3rd party be obtained to conduct a project review and make recommendations to the agency head and JCIT regarding causes for the project deviation from plan, corrective actions needed, expected outcomes, and whether the project the project should be continued.
Actual vs. Planned Resources	Deficiency gap of 15%-20%	The project manager should be acting with the project sponsor to correct this condition. For some projects, the impact of this level of deficiency may be greater than indicated and be reflected in the other measures as well.
Actual vs. Planned Resources	Deficiency gap of 20%-25%	There should be a plan to show a compensatory change n resources or a plan to reduce the scope, costs and objectives for the project with approval of the agency head. For some projects, the impact of this level of deficiency may be greater than indicated and will be reflected in the other measures as well.
Actual vs. Planned Resources	Deficiency gap of 25% or more	A deficiency of this magnitude places project in jeopardy and 3rd party review should be considered if the impact is reflected in other measures. The project should not be permitted to drift awaiting a compensatory resources plan or a new reduced project scope plan. If a new project plan is developed, the new financial plan, return on investment and objectives to be achieved must recalculated and presented for review as well.

APPENDIX D
Summary Schedule and Cost Statistics For OSCAR

This table includes quarterly statistics for the OSCAR project based on our review of internal project management reports for the quarterly time periods from January 1, 2017 through March 31, 2018. The initial project cost for the project was \$8.7 million. The project is scheduled to go live in November 2018 and to be fully completed by April 2019.

Summary Schedule and Cost Statistics						
Calendar Year Quarter ending	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018	6/30/2018 (c)
Cost Baseline - the approved version of the project budget	\$8,678,450	\$8,661,400	\$8,256,450 (b)	\$8,256,450	\$8,256,450	\$8,542,576
Planned Value (PV) - the authorized budget assigned to scheduled work (also known as Budgeted Cost of Work Scheduled)	(a)	(a)	\$2,650,320	\$3,542,017	\$4,425,457	\$5,492,876
Earned Value (EV) - the measure of work performed expressed in terms of the budget authorized for that work (also known as Budgeted Cost of Work Performed)	(a)	(a)	\$2,749,398	\$3,575,043	\$4,128,225	\$5,511,339
Actual Cost (AC) - the realized cost incurred for the work performed on activity during a specific time period	(a)	(a)	\$2,877,006	\$3,657,808	\$4,260,342	\$5,300,067
Schedule Variance (SV) - a measure of schedule performance expressed as the difference between the Earned Value and the Planned Value	(a)	(a)	\$99,078	\$33,026	(\$297,232)	\$18,463
Schedule Performance Index (SPI) - a measure of schedule efficiency expressed as the ratio of Earned Value to Planned Value (a ratio of 1.0 or better is good)	(a)	(a)	1.04	1.01	0.93	1.00
Cost Variance (CV) - the amount of budget deficit or surplus at any given point in time, expressed as the difference between Earned Value and Actual Cost	(a)	(a)	(\$127,608)	(\$82,765)	(\$132,117)	\$211,272
Cost Performance Index (CPI) - a measure of the cost efficiency of budgeted resources expressed as the ratio of earned value to actual cost (a ratio of 1.0 or better is good)	(a)	(a)	0.96	0.98	0.97	1.04
(a) As of June 30, 2017, agency staff had not created overall statistics to track cost and schedule. We did not calculate cost or schedule metrics for the first or second quarter of 2017.						
(b) Cost baseline was adjusted when estimated costs for an originally planned subproject were removed.						
(c) This quarter included a change order which caused the cost a change in several metrics including the cost baseline.						
Source: LPA analysis of OSCAR project management documentation						

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