IT PROJECT MONITORING REPORT

Kansas Department of Labor
OSCAR IT Project
Quarter Ending June 30, 2017

CURRENT STATUS: SATISFACTORY

Legislative Division of Post Audit

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Scott Frank, Legislative Post Auditor

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October 6, 2017

To: Members, Legislative Post Audit Committee

This report contains the findings from our fifth monitoring report of the *Kansas Department of Labor OSCAR IT Project (Quarter ending June 30, 2017)*. 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,

Scott Frank
Legislative Post Auditor

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Biltmore has been in production since August 2001 and has become outdated.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 the imaging system. The Department of Labor's Online System for Claims Administration and Research (OSCAR) project will replace and modernize this 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, and 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 implementation of the new system.

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 initial monitoring efforts, we reviewed project documentation and read relevant KITO reports to understand and familiarize ourselves with the project. We also attended key communication meetings (e.g. kickoff, steering committee) from January 15, 2017 through June 30, 2017, 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 18, 2017. The department's response is included as ***Appendix A***.

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Overall Project Status:
SATISFACTORY

We determined the overall project health for the OSCAR project to be satisfactory. We evaluated the project across four major areas: project scope, schedule, cost, and quality. Except for quality, these areas also are tracked by the Kansas Information Technology Office, or 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 quality.

- **Caution status:** The project does not meet several state laws, policies or guidelines, has deviations or unrealistic milestones in scope, schedule, cost, or quality, 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 quality 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.

The table 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.

Kansas Department of Labor's OSCAR Project
Summary of LPA Monitoring Findings as of June 30, 2017

Area	Summary of Assessment	Satisfactory	Caution	Unsatisfactory	Informational
Scope	The project scope is the result of a formal analysis of the department's goal to improve services and update technology.	x			
	The department entered into a fixed-price contract with CapTech for the majority of the work, which helps prevent scope creep.	x			
	During the approval process, a portion of the OSCAR project was descoped and will be handled as a separate project.				x
Schedule	The OSCAR project schedule was revised soon after its initial KITO approval to update its start date.	x			
	As of the end of the second quarter, work appeared to be on track even though officials did not collect schedule performance statistics for the project.	x			
Cost	The estimated $8.7 million price for this project consists primarily of a single fixed-price contract.	x			
	The project's budgeted cost will need to be reduced by about $425,000 once the department separates out the document imaging portion.				x
	As of the end of the second quarter, officials did not collect cost performance statistics for the project, but CapTech contract payments appeared to be on track.	x			
Quality	The project follows several project management processes that help ensure good quality.	x			

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

SCOPE:
SATISFACTORY

The project scope is the result of a formal analysis of the department's goal to improve services and update technology (satisfactory). The separate DigiComp project mentioned on page 1 helped define the scope for the OSCAR project to include data collection, insurance coverage, disputes, medical fees, fraud, safety, administration, and fiscal services. In addition, OSCAR will allow internal and external stakeholders to access and review historical case files electronically by integrating document imaging functions.

The department entered into a fixed-price contract with CapTech for the majority of the work, which helps prevent scope creep (satisfactory). Scope creep occurs when features or functions are added to a project beyond the initial agreed-upon scope. Scope creep is common when a project's specifications are not properly defined, documented, or controlled. The fixed-price contract the department established with its primary contractor helps limit scope creep by removing the incentive to add work beyond the agreed-upon scope. When work is paid based on deliverables rather than time invested, it is much more likely that efforts are focused on completing the deliverable rather than on features outside the defined scope.

In addition to tracking risks, assumptions, issues, and dependencies (RAID), the project has an established process for change requests.

This is an appropriate project management control in case the scope needs to be revised. We observed the department's active participation in monitoring the contractors' activities and progress and noted no signs of scope issues thus far.

During the approval process, a portion of the OSCAR project was descoped and will be handled as a separate project (informational). Agency staff originally intended for OSCAR's scope to include a process to image historical case files. Digitizing these documents would save physical space, and would make accessing and reviewing historical documents much easier. Upon receiving instruction from KITO, the agency decided to separate this portion of the original OSCAR project into a separate project.

SCHEDULE: SATISFACTORY	**The OSCAR project schedule was revised soon after its initial KITO approval to update its start date (satisfactory).** Originally, the OSCAR project was scheduled to start in December 2016 and finish by January 2019. The Department of Labor received initial high-level approval from KITO in June 2016, and its initial schedule depended on having a signed contract in place by Fall 2016. However, negotiations took longer than anticipated, and a contract was not signed until January 2017. That meant the planned timeline needed to change. Agency officials revised the high-level plan to reflect that change and resubmitted those changes to KITO for approval in May 2017. The revised plan was approved by KITO in late June 2017, just before the end of the quarter. The revised schedule establishes the go-live date as November 30, 2018, and the official closeout for the project in April 2019. KDOL officials followed acceptable project management processes by revising the project's schedule based on current information. **As of the end of the second quarter, work appeared to be on track although officials did not collect schedule performance statistics for the project (satisfactory).** As described earlier on page 6, the contract with CapTech is a fixed-price contract which creates an incentive to produce timely work. This contract accounts for more than two-thirds of the project costs. The steering committee reviews the schedule with its CapTech counterparts each week and discusses what has been accomplished, what is past due, and what should be happening in the upcoming few weeks. The contractor's work appears to be generally on track. The remaining 30% of project costs include staff salaries, capital outlay, and other costs. These costs generally do not drive the project schedule. For example, a quarterly payment to KITO will not affect the deadlines. However, project management practices suggest creating a Schedule Performance Index (SPI) to determine

whether the project is ahead or behind its schedule at any given time. This metric calculates earned value compared to planned value to evaluate schedule performance. The agency should consider creating an overall SPI to objectively measure the project's overall progress.

COST: *SATISFACTORY*	**The estimated $8.7 million price for this project consists primarily of a single fixed-price contract (satisfactory).** Project documents enumerate several cost components, including $7.5 million for external contractual services, $600,000 for internal salaries, $425,000 for commodities and capital outlay, and $136,000 for KITO fees. The project is supported by three vendors. The largest contract is with CapTech, and was signed for $6 million or nearly 70% of the total project cost. That contract includes 30 tasks with an associated deliverable and fixed cost for each task. For each deliverable, the department assesses whether agreed-upon requirements have been met, and it must accept each deliverable before payments are made. The benefit of a fixed-price deliverable is that the cost does not escalate even when the contractor must spend more time then estimated to complete the task. **The project's budgeted cost will need to be reduced by about $425,000 once the department separates out the document imaging portion (informational).** In addition to the CapTech contract, OSCAR's external costs included two smaller contracts: one for consulting, and one for work related to updating the department's document imaging process. According to agency officials, costs related to the imaging component were estimated at $425,000. As described in the scope section on page 7, the department has created a separate project to account for that work. Officials agreed that the associated costs still contained in the OSCAR project should be removed in the next quarter (ending September 30, 2017) to reflect that change. **As of the end of the second quarter, officials did not collect cost performance statistics for the project, but CapTech contract payments appeared to be on track (satisfactory).** Through the end of this monitoring period, the department has made $1.5 million in payments to CapTech for eight tasks that have been completed and accepted. Additionally, the department monitors costs that are not associated with its main contractor in a separate spreadsheet. Project management practices suggest creating a Cost Performance Index (CPI) to determine whether the project is under or over budget at any given time. The metric calculates earned value compared to actual costs. CPI is less valuable for a project consisting primarily of a fixed-price contract because costs are paid per deliverable, mitigating the risk of escalating costs. We do

not have concerns in this area at this point. Nevertheless, project staff should consider developing overall cost performance statistics to be able to evaluate whether budgeted costs are consumed as projected.

QUALITY:
SATISFACTORY

The project follows several project management processes that help ensure good quality (satisfactory). As described on page 1 of the Overview, the Department of Labor completed a separate project to plan and secure a vendor for the OSCAR project. The department selected a contractor who had demonstrated experience creating systems like OSCAR for other states, including Nevada, Kentucky, and Virginia. We also noted the project has a designated project sponsor, a steering committee, and a properly certified and experienced project manager—all of which are important elements of a well-managed IT project.

Since our monitoring started, these stakeholders have not changed, and regular steering committee meetings have taken place. We have observed steering committee members regularly discussing existing risks to the project, and IT security has been actively discussed. As mentioned before on pages 6 and 7, the project plan includes a change management process in case substantial scope, schedule, or cost changes need to be made. Lastly, we noted that steering committee members reviewed and assessed each completed deliverable before accepting and approving payments. These project monitoring processes help ensure project quality.

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APPENDIX A

Agency Response

On August 18, 2017, we provided copies of the draft audit report to the Department of Labor. Its response is included as this Appendix. In its response, the agency provided specific project management metrics. We did not evaluate and therefore cannot confirm the accuracy of these values.

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Lana Gordon, Secretary

Sam Brownback, Governor

September 1, 2017

Legislative Division of Post Audit
800 SW Jackson, Ste 1200
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Dear Scott Frank,

The Kansas Department of Labor received the draft report from Legislative Post Audit on August 18, 2017 for the OSCAR project. We have reviewed the draft report and findings as well as discussed them with Post Audit staff on August 24, 2017 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 with dispute any of the satisfactory findings related to scope, cost, schedule, and quality. KDOL is in agreement with their assessment and thanks them for their review.

As stated in the report the imaging portion of the OSCAR project was de-scoped during the third quarter of 2016. Project management staff believed that this should has remained as a part of OSCAR. At the request of KITO we have established the imaging project (Lorax) as a completely separate project, however, the funds were not extracted from the OSCAR project until after all approvals were received from KITO, July 2017. Those funds $425,000.00, have now been extracted and revised documentation is complete for the final submission to KITO.

Once the cost extraction was completed in July we also established the project management reports and measurements required. This includes SPI and CPI index displayed below

	QTR 1	QRT 2
SPI	0.935	1.262
CPI	1.057	0.976

Again, we are in agreement with the findings in the report and would like to thank the Legislative Post Audit, and staff for their participation and information provided in the report.

Sincerely,

Lana Gordon

Lana Gordon
Secretary, Kansas Department of Labor

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.

- **OSCAR – Online System for Claims Administration Research/Regulation.** The new workers' compensation system created through this project. As of June 30, 2017, the system is scheduled to start being used (go live) in November 2018.

- **DigiComp –** The planning phase of the new workers' compensation system. This phase was handled as its own project. It started in early 2014 and was completed in the fourth quarter of 2016, for a cost of about $580,000.

- **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.

- **KDOL - Kansas Department of Labor.** The Department is a Kansas Cabinet-level agency and assists in the prevention of economic insecurity through unemployment insurance and workers compensation. The department provides a fair and efficient venue to exercise employer and employee rights and helps employers promote a safe work environment for their employers.

- **KITO - Kansas Information Technology Office.** KITO supports the statutory responsibilities of the Executive, Judicial, and Legislative Branch CITOs 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). If the result is less than one, it indicates the project is behind schedule.

- **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.

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.

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 June 30, 2017. The initial project cost for the project was $8.7 million and is scheduled to be completed April 2019.

Summary Schedule and Cost Statistics		
Calendar Year Quarter ending	**3/31/2017**	**6/30/2017**
Cost Baseline - the approved version of the project budget.	$8,678,450	$8,661,400
Planned Value (PV) - the authorized budget assigned to scheduled work (also known as Budgeted Cost of Work Scheduled)	(a)	(a)
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)
Actual cost (AC) - the realized cost incurred for the work performed on activity during a specific time period.	(a)	(a)
Schedule variance (SV) - a measure of schedule performance expressed as the difference between the earned value and the planned value.	(a)	(a)
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)
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)
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)
(a) As of June 30, 2017, agency staff had not created overall statistics to track cost and schedule. As a result, we were unable to evaluate schedule or cost statistics this quarter.		