

Secretary of State Audit Report

Kate Brown, Secretary of State

Gary Blackmer, Director, Audits Division



Department of Human Services: OR-Kids Financial System Problems

Summary

The focus of this audit was to identify and evaluate OR-Kids computer controls and to assist our financial and federal compliance auditors in assessing risks associated with processing expenditures through the OR-Kids computer application. We did not evaluate the implementation of OR-Kids or its case management functions.

In addition to processing payments, OR-Kids supports dozens of child welfare program functions related to provider certification, adoption work, eligibility determinations and case management. In state fiscal year 2014, the system processed expenditures totaling about \$208 million.

During our evaluation of the OR-Kids financial module, we identified several significant system issues and internal control weaknesses that the department should take steps to resolve:

- The OR-Kids financial module erroneously adjusted expenditure funding for previously processed transactions due to data conversion errors or system development weaknesses.
- Manual review and approval of payments is not always effective.
- Fixes were not made in a timely manner when financial errors occurred.
- Security needs improvement.

Between September 2011 and December 2013, expenditure funding errors totaled approximately \$34.9 million. The Audits Division reported on the issue in the Federal Single Audit. The department returned approximately \$23.3 million to the federal government and corrected approximately \$9.5 million of the misstated General and Other Fund account balances. An estimated \$2 million adjustment is still needed.

Department staff informed us that in June 2014 they had corrected underlying data errors, which should prevent most additional overcharges for federal funding. They stated that the system still allows adjustments beyond the two-year federal limit, but the department would continue making manual corrections in the accounting system.

Although management has taken some actions to address these issues, financial and federal compliance auditors will need to increase their work and testing to compensate for the weaknesses we identified.

Agency Response

The agency response is attached at the end of the report.

Background

The Department of Human Services (department) dedicates staff and services for keeping Oregon children safe and healthy. The department's child welfare program provides services for families including foster care, adoption, guardianship supports, and services that can help support families safely parent their children at home. Child welfare workers also receive and investigate tens of thousands of reports of child abuse and neglect.

During the federal fiscal year ending September 2012, the department received about 67,500 reports of child abuse or neglect. Department staff determined that 6,332 of these were founded and involved 10,054 victims. In addition, an average of 8,500 children were in foster care during the year, and the department provided family support for more than 7,500 children in their homes.

During the state fiscal year (SFY) ending June 30, 2014, the department processed child welfare program expenditures totaling approximately \$208.6 million. Monies to make these and other payments come from a variety of sources, including child support received from non-custodial parents, a variety of federal programs, and the state's General Fund. During federal fiscal year 2014, federal funds covered about 63% of the department's child welfare program costs and 50% of administrative costs.

In order to qualify for federal funding, the department must track and report on the clients, providers, and services in its child welfare programs. In order to facilitate the required federal reporting, the department relied on several mainframe systems developed since 1979. These legacy systems, along with various ancillary computer applications, databases, and spreadsheets, met only a portion of federal reporting requirements and Oregon child welfare needs.

To help Oregon meet reporting requirements and improve child welfare programs, the federal government provided funding to cover 50% of the costs of new computer systems. In April 2007, the department issued a formal Request for Proposal to design and develop its proposed system. Department officials indicated that the only viable proposal they received was from CGI Technologies and Solutions, Inc. In March 2008, the department accepted CGI's bid and both parties signed a contract to develop and implement a new child welfare computer system called OR-Kids.

CGI had implemented similar systems in other states and based OR-Kids on its Wisconsin version with customization for Oregon. The original CGI contract price for OR-Kids was not to exceed \$29.6 million, but after multiple delays and amendments, the final cost of the contract was about \$40 million. The total cost of the project was about \$74 million.

On August 29, 2011, more than a year after the original planned implementation date, the department activated OR-Kids but did not formally accept the system because of significant system defects. The department negotiated a resolution with CGI and took full responsibility for the support and operation of OR-Kids in March 2013.

OR-Kids replaced the department's outdated legacy systems and ancillary systems previously used for case management. Some of the dozens of child welfare program functions supported by the system include provider certification, adoption work, eligibility determinations, and case planning and tracking. In addition, OR-Kids processes payments for services and facilitates other financial work for child welfare programs.

Audit Results

The focus of this audit is to identify and evaluate OR-Kids computer controls and to assist our financial and federal compliance auditors in assessing risks associated with processing expenditures through the OR-Kids computer application. As such, we limited the scope of our audit work to evaluating the OR-Kids financial module and related controls for ensuring the security and integrity of the computer system.

Specifically, we did not perform a comprehensive evaluation of the department's efforts to develop and implement OR-Kids. We also did not evaluate whether OR-Kids fulfills the department's case management requirements or expectations. However, we considered system development weaknesses that caused or contributed to financial module issues.

OR-Kids erroneously adjusted expenditure funding

The accuracy and validity of payments made through OR-Kids depends largely on manual processes, such as supervisory reviews of transactions, rather than automated controls. One notable exception is that the OR-Kids financial module is designed to automatically evaluate and, as needed, adjust the source of funding for transactions that have already occurred. These adjustments frequently result in claims for additional federal funding for the department's child welfare programs.

As children's individual circumstances change, their eligibility for benefits under one or more of the available programs may also change. For example, caseworkers may discover that a child is eligible for a federally subsidized program after payments were made using the state's General Fund. In these instances, the department may request additional monies from federal programs to reimburse the state for amounts it previously paid. The department may also receive child support payments on behalf of the children it serves. These funds may then be used to offset monies the department previously spent to benefit these children.

Prior to implementing OR-Kids, the department handled these types of adjustments manually. The OR-Kids design included provisions to automate these processes. When caseworkers input certain information into OR-Kids, such as changes to a client's eligibility, the system automatically evaluates the impact the changes could have on how previous expenditures were funded. When the system detects that a change in funding for those transactions is needed or would be warranted, OR-Kids automatically creates adjusting entries without altering who received these payments or how much money was spent. The department indicated the purpose of this functionality is to "maximize State Revenue by increasing the amount of Federal funds used towards the cost of ongoing care."

Data conversion errors and a fundamental logic flaw caused OR-Kids to create erroneous adjusting entries totaling approximately \$34.9 million between September 2011 and December 2013. As a result, the department obtained approximately \$23.9 million from federal programs to which it was not entitled and understated the amount of General and Other Fund monies it should have used by approximately another \$11 million.

Data conversion errors

Generally accepted controls for computer systems indicate that all necessary data elements should be converted from an old to a new system according to a pre-established plan. Once data is transferred, system owners should confirm that the process was successful before placing the system into production.

As of June 2014, the department listed more than 290 unresolved system problems or deficiencies related to data fixes or data quality. The department and its third-party quality assurance contractors identified multiple problems that occurred throughout the data conversion process including:

- The department and vendor staff did not test data they converted and input into the system.
- The conversion team did not appropriately log or monitor the data conversion process.
- The conversion team input data that was not compatible with the system because they did not have a thorough understanding of the data layout and structure of the new system.
- The conversion team did not correctly populate all tables.

These problems ultimately resulted in poor data quality, such as missing eligibility determinations, missing cases, and inaccurate funding source information for past payments. For example, payments that were originally funded using federal monies were sometimes incorrectly depicted in OR-Kids as having been paid with state General Fund dollars. When these types of payments were analyzed by the system, OR-Kids determined they were eligible for federal funding and incorrectly created adjustments to again claim federal dollars.

Poor data quality also adversely impacts the department's ability to efficiently carry out its mission to serve and protect children. For example, department staff indicated that some case file information, such as worker notes, screening reports, assessments, and perpetrator and victim identification were not loaded into OR-Kids as planned. This information is critical for department staff making decisions for children in the state's care. Data quality issues also increase the workload of department staff who must manually correct data in order to accurately file the required federal reports.

System development weaknesses

When acquiring or developing a new information system, organizations should ensure that automated functionality is developed in accordance with design specifications, development and documentation standards, and quality requirements.

When Department management decided to activate OR-Kids they were aware of a number of known software defects and gaps in the system. As of June 2014, the department listed about 875 significant system defects or issues, many of which existed at implementation.

One of these defects allowed the department to submit claims for reimbursement for federal funding to which it was not entitled. Federal requirements indicate that claims must be submitted for reimbursement within two years after the calendar quarter in which the department made the expenditure. The department designed the financial module to adjust the funding sources without properly considering the original expenditure date. As a result, the department obtained reimbursements totaling approximately \$4.3 million during SFY 2013, for time periods exceeding two years.

In addition, the department's third-party quality assurance contractors identified numerous shortcomings regarding how the department tested OR-Kids. Some of these issues included:

- over-reliance on the developer for performing unit, system and regression testing;
- lack of regression testing to identify whether new code would inadvertently "break" code that was already tested;
- proceeding with user acceptance tests before independent verification and validation steps were successfully completed; and
- the user acceptance testing environment used only "clean" data sets that were not representative of actual converted data.

Organizations should ensure that new applications are thoroughly tested to identify and resolve any significant problems prior to system rollout and formal acceptance. Implementing a system before it is properly tested goes against best practices and increases the risk that the application could include significant weaknesses.

Manual review and approval controls are not always effective

Generally accepted computer controls indicate that transactions should be subject to a variety of controls to check for accuracy and validity. These controls are often a combination of manual and automated processes.

OR-Kids is designed to facilitate and document an independent review and approval of transaction inputs. Logical access controls are designed to

ensure that only authorized workers can enter financial transactions into the system. Once entered, OR-Kids will not process the transaction until another authorized user, usually a supervisor, indicates in the system that he or she has reviewed the input and approves the transaction.

The effectiveness of this approval process depends on the diligence of the persons designated to review transactions. During our review, we noted a few instances where these controls did not prevent significant payment errors from occurring.

In July 2013, a department worker intended to input a transaction into OR-Kids to pay a provider \$323.88 for services rendered to a single client. Because of confusion regarding how to properly enter the amount of the payment, the worker inadvertently entered an amount the system translated to be \$1,748,304.24. A supervisor approved the transaction in OR-Kids and the department sent the payment, which was cashed by the provider.

This same overpayment scenario repeated itself in April 2014. Although the amount of the mistake was again over \$1.7 million, this error occurred in a different branch office with different workers performing the input and approval.

Staff in the department's financial services section indicated that they discovered the overpayments the day after they were sent and began the process to recover the overpayments. In the first instance, the check was mailed and cashed so recovery took eight days. The department received reimbursement for the second overpayment within two days because the original payment was made with an electronic funds transfer.

We concluded that the supervisor's review and approval in these instances was perfunctory since the amount of the transactions was visible on the approval screens. In addition, the average size of a single expenditure during the year was about \$316 and 99.8% of all other payments processed through OR-Kids were less than \$3,500.

The department has since applied automated thresholds to OR-Kids' input screens to lower the risk of similar overpayments. Although this change could effectively prevent very large errors from occurring, it would still allow smaller errors that fall within maximum limits. Detecting these types of errors would require a thorough and attentive review prior to approval.

Need for more timely fixes when financial errors occur

When state agencies know they have overcharged federal grants, they must identify the amounts, take timely action to prevent further occurrences, make the necessary corrections to pay back the funds, and ensure financial statements are correctly stated.

Department management learned that the financial module was producing incorrect financial reports and overcharging federal grants as early as September 2012. A department analysis at that time identified details about the errors and estimated the erroneous charges to federal grant programs during OR-Kids' first year of operation.

When we learned of this computer system issue we conveyed it to the financial auditors in our division and they reported it in the Federal Single Audit. The Department returned \$23.3 million of federal monies and corrected approximately \$9.5 million of the misstated General and Other Fund account balances in January 2014. We estimate that other adjustments of about \$2 million will be necessary. Further attention will be needed to ensure the accuracy and completeness of future adjustments.

Department staff informed us that in June 2014 they had corrected underlying data errors, which should prevent most additional overcharges for federal funding. They stated that the system still allows adjustments beyond the two-year federal limit, but the department would continue making manual corrections in the accounting system.

Although management has taken some actions to address these and other issues in the report, financial and federal compliance auditors will need to increase their work and testing to compensate for the weaknesses we identified.

Security needs improvement

The integrity of computer systems is preserved by controls that protect transactional data and system code from unauthorized use, disclosure, or modification. We found logical access security controls were in place to protect OR-Kids and its data. However, we noted some weaknesses that should be corrected.

Because of its sensitive nature, we excluded detailed information relating to access control weaknesses and recommendations from this report. We communicated details regarding these matters to department management in a separate confidential document, as provided in ORS 192.501 (23).

Recommendations

We recommend the Department of Human Services:

- Closely review OR-Kids transactions and financial reports to ensure accuracy and appropriateness, and return any amounts owed for federal overcharges.
- Make changes to the financial module to prevent it from claiming federal funding outside the two year period.
- Take steps to ensure a more robust supervisory review of transactions takes place.
- Address the security recommendations included in the confidential management letter.

Objectives, Scope and Methodology

The purpose for this audit was to assist our financial and federal compliance auditors in identifying and evaluating OR-Kids computer controls to help them assess the risk associated with processing of expenditures made through the system. As such, we chose to limit our scope to the financial module of OR-Kids, then further to the automated refinancing subroutines.

Our audit objectives were to determine whether:

- Logical access controls provide reasonable assurance that the OR-Kids application is protected against unauthorized use, disclosure, or modification.
- OR-Kids automated processes for optimizing expenditure funding work as intended.

To achieve these objectives, we conducted interviews with appropriate Department of Human Services and Oregon Health Authority personnel, reviewed pertinent documentation, and observed processes.

To evaluate logical access controls, we:

- reviewed the methods by which users are provided access to the OR-Kids system code, application, and data;
- reviewed transaction logs for unauthorized user access to OR-Kids;
- tested whether user access roles in the system appropriately matched user job roles; and,
- tested whether terminated or transferred employees had their access appropriately removed from the system.

To evaluate the automated processes, we:

- reviewed federal reporting requirements and results of federal assessments;
- reviewed technical documentation, third-party quality assurance and quality control documents, project close-out documents, and lessons learned;
- interviewed technical and business staff regarding known errors;
- performed analytical reviews of transaction data to validate the effect of the automated processing errors; and,
- reviewed and validated the methodology used by the department to identify the financial impact of the known errors.

We did not assess: change management controls; all inputs, outputs, and processing of payments; or network security, which is a shared responsibility between the department and the Department of Administrative Services' Enterprise Technology Services data center.

Because of its sensitive nature, we communicated detailed information relating to security findings and recommendations to the department under separate cover in accordance with ORS 192.501 (23), which exempts sensitive information from public disclosure.

We used the IT Governance Institute's publication, "Control Objectives for Information and Related Technology," (COBIT), and the United States Government Accountability Office's publication "Federal Information System Controls Audit Manual" (FISCAM) to identify generally accepted control objectives and practices for information systems.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Oregon

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December 9, 2014

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RE: OR-Kids Financial System Problems: Agency Response

Dear Mr. Blackmer,

We appreciate the work of the Secretary of State's Audit Division, and the agency agrees with the recommendations made in the final audit report. We have also provided our response to the confidential management letter in a separate document.

Introduction

This audit focused on one part of the OR-Kids computer system, the financial module, and we wanted to provide some additional context prior to discussing specific issues identified in the audit report.

The OR-Kids project converted data from paper files and seven disconnected systems used by the DHS Child Welfare program into a single Statewide Access Child Welfare Information System (SACWIS). Or-Kids provides important case management and data collection tools to meet Federal reporting requirements, as well as information to inform decision making and support for caseworkers' interaction with children, youth, and families through the life of a Child Welfare case.

This audit report confirmed many of the very issues the agency had been monitoring. In fact, the Oregon legislature, Governor's office and our federal partners were kept fully apprised of status and issues throughout OR-Kids development and rollout.

All complex technology systems have challenges – with data conversion, accuracy, interruptions in service, and other issues (small and large). However, the OR-Kids system itself, especially the child safety and foster care management modules, has allowed caseworkers consistent access to the system since go-live in 2011, with very little downtime -- which was not true of the legacy systems it replaced.

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Even before the system was launched, the agency was working to identify and prepare for technical and training issues, including those identified in this audit report. As the project rolled out, DHS leadership and project staff continued to closely monitor and adjust to address problems for providers and staff. The agency reallocated resources to address technical and process issues and ensure that corrective action and improvements were put in place.

Today, the OR-Kids system continues to work and provide the important support for child safety and business processes we expected when we launched more than three years ago.

A few of the benefits OR-Kids has delivered are listed below:

- All Child Welfare information is contained in a single state system;
- Workers can better screen reports of child abuse and neglect because more information is linked and can be searched across files;
- OR-Kids has created efficiencies, through automated processes, that allow casework to take less time than in the old systems. Our most recent Workload Survey shows that workers are now spending more time with children and families than doing paperwork and multiple data entry;
- System is generating accurate information for federal and state reporting purposes, as well as for our new public foster care information site;
- More than 43,000 cases are managed each month by 2,000 users; and
- A total of \$561 million has been processed and paid to 30,462 providers through the financial module of the OR-Kids system (about 1.5 million payment records).

Response to Audit Recommendations

As stated earlier, we accept the recommendations in the audit report, and we have taken (and continue to take) steps to address the issues identified in the recommendations.

1. Closely review OR-Kids transactions and financial reports to ensure accuracy and appropriateness, and return any amounts owed for federal overcharges.

The agency has made significant progress in addressing this recommendation and returning funds due to our federal partners. It should

be noted that most of the funding errors occurred during a single data conversion event in which millions of payment records were converted to incorrect accounting codes.

Once the agency received its first comprehensive grant level remediation document (for transactions from August 2011 through December 2012), we put an estimate on the state accounting system to reimburse the federal government \$23.3 million. The following two quarters' remediation estimate resulted in an additional \$3.4 million adjustment. The final data conversation reconciliation is expected to be completed in December 2014, resulting in an approximate \$500,000 final adjustment.

In June 2014, the agency also implemented a final permanent data fix on the remaining "untouched" converted cases thereby permanently fixing this data conversion issue.

2. Make changes to the financial module to prevent it from claiming federal funding outside the two year period.

The OR-Kids system was not designed to disallow federal claiming outside the federal two-year limit. Therefore, the agency has been manually reducing these costs to ensure we do not charge the federal government for claims outside the allowable period.

The agency has a documented system change to resolve this issue and this change is in the queue for action. For now, we will continue to manually remove old transactions so that the federal government does not pay costs outside the two-year limit.

3. Take steps to ensure a more robust supervisory review of transactions takes place.

The agency expects that the supervisory review of OR-Kids transactions will be a check and balance on potential human errors in working with the system, and we have taken several steps to increase the effectiveness of those reviews.

The Child Welfare program has communicated to case workers, as well as to supervisors and managers, about the importance of accuracy in the system. Those communications were followed up by approval and oversight trainings at the agency's Supervisor Quarterly meetings. As a further safeguard, technical staff placed a monetary cap on approved expenditures by service category to ensure that no large payment errors could be processed. The

Office of Financial Services has also implemented a review of large transactions to ensure they are correct.

Since these controls were put in place, transaction errors have been better identified and corrected prior to payments being issued. In addition, the agency will review the cap limit within the next 30 days to determine if the amount should be adjusted to further improve accuracy.

4. Confidential findings.

The agency agrees with the recommendations in the Confidential Management Letter, and we are taking actions as addressed in our confidential response.

Conclusion

Everyone who works in a large organization knows that complex technology systems have challenges. However, the OR-Kids system provides essential technical support for child safety and related business operations for the Oregon Department of Human Services. We have realized significant benefits from the system, and as our child welfare practice evolves, we will continue to make changes and enhancements to support child welfare best practices and business needs.

Thank you for the opportunity to respond.

Sincerely,

A handwritten signature in blue ink, appearing to read "Erinn Kelley-Siel". The signature is stylized and cursive.

Erinn Kelley-Siel
Director

About the Secretary of State Audits Division

The Oregon Constitution provides that the Secretary of State shall be, by virtue of her office, Auditor of Public Accounts. The Audits Division exists to carry out this duty. The division reports to the elected Secretary of State and is independent of other agencies within the Executive, Legislative, and Judicial branches of Oregon government. The division audits all state officers, agencies, boards, and commissions and oversees audits and financial reporting for local governments.

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The courtesies and cooperation extended by officials and employees of the Department of Human Services and Oregon Health Authority during the course of this audit were commendable and sincerely appreciated.