Audit of the Implementation of the Child Support Enforcement Agency's Information System

A Report to the Governor and the Legislature of the State of Hawaii

Report No. 98-12
April 1998

THE AUDITOR
STATE OF HAWAII

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Submitted by

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Foreword

This is a report of our audit of the implementation of the Child Support Enforcement Agency's information system. This audit was conducted pursuant to Section 23-4, Hawaii Revised Statutes, which requires the Auditor to conduct postaudits of the transactions, accounts, programs, and performance of all departments, offices, and agencies of the State and its political subdivisions.

We wish to express our appreciation for the cooperation and assistance extended by officials and staff of the Department of the Attorney General's Child Support Enforcement Agency.

Marion M. Higa
State Auditor

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Chapter 1

Introduction

The purpose of this audit is to report the status of the Child Support Enforcement Agency's implementation of its new information system. The agency's proposed new computer system, known as KEIKI, was intended to meet the 1988 Federal Family Support Act requirement that a certified automated data processing and information retrieval system for the State's child support enforcement program be in place by October 1997. This audit was conducted pursuant to Section 23-4, Hawaii Revised Statutes (HRS), which requires the State Auditor to conduct postaudits of the transactions, accounts, programs, and performance of all departments, offices, and agencies of the State and its political subdivisions.

Hawaii's Child Support Enforcement Agency Is Part of a National Effort

Federal requirements and funding lead state efforts to collect child support payments

Hawaii's Child Support Enforcement Agency (CSEA) is part of a national program to ensure that non-custodial parents provide financial support for their children. Established by Congress in 1975, under the provisions of Title IV-D of the Social Security Act, the child support enforcement program is a cooperative undertaking of federal, state, and local agencies. The program is overseen by the federal Office of Child Support Enforcement within the Department of Health and Human Services. This office sets standards and policies, evaluates state program performance, audits state program activities, and offers technical assistance and training. Federal and state governments jointly fund each state's child support enforcement program, with the federal government normally providing 66 percent of the funding, while each state funds the remaining 34 percent.

Each state's child support enforcement agency operates under a state plan approved by the federal Office of Child Support Enforcement. State child support enforcement agencies' activities include establishing and enforcing paternity and support orders, and collecting and dispersing support funds received. To achieve their objectives, the state agencies work with family courts, prosecuting attorneys, and other law enforcement agencies.

The Agency Has a Checkered History

Chapter 576D, HRS, established Hawaii's child support enforcement program. The program, originally placed in the Department of Social Services and Housing, now the Department of Human Services, was transferred by the Legislature in 1986 to the Department of the Attorney General.

The agency is now in the Department of Attorney General

Today the Child Support Enforcement Agency is one of sixteen divisions within the Department of the Attorney General. With a staff of 167, the agency is organized into branches with offices on Hawaii, Kauai, Maui and Oahu. Exhibit 1.1 illustrates the present organization of the agency.

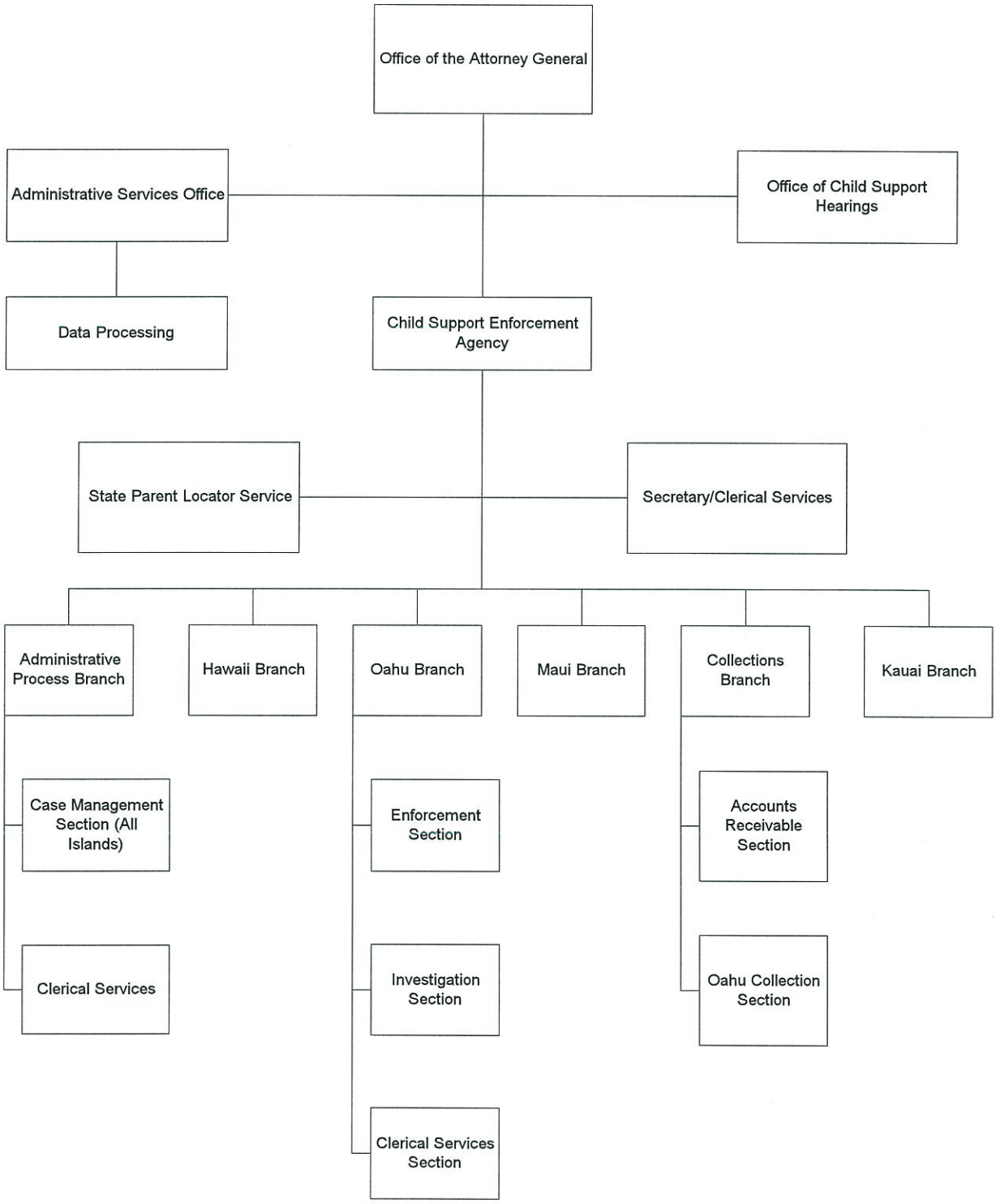
The agency's primary function is to collect child support payments and ensure these payments are correctly distributed to custodial parents who request services. The Department of Human Services refers all welfare cases requiring child support services to the agency. Walk-in applicants, as well as referrals from private attorneys and other states, are also served.

In FY1994-95, the Child Support Enforcement Agency processed 76,301 cases, collecting approximately $74 million. Almost 29,000 of these were either welfare or foster care cases, resulting in approximately $6 million in reimbursements to the State's Aid to Families with Dependent Children (AFDC) program. (The Temporary Assistance to Needy Families or TANF program replaced AFDC in August 1996 with the passage of federal welfare reform.) In FY1997, the agency processed 95,766 cases collecting approximately $85 million with reimbursements to the State General Fund of about $5.3 million.

The agency's history of inadequate performance is partially tied to its computer system

Hawaii's Child Support Enforcement Agency has had a history of inadequate performance. Our 1989 report, *Operations Audit of the Child Support Payment Process*, Report No. 89-23, found that the agency inordinately delayed processing child support payments. A subsequent audit, *Management Audit of the Child Support Enforcement Agency*, Report No. 92-22, found that the agency continued to experience serious bottlenecks in processing cases. The agency's financial management methods were seriously deficient, resulting in inaccurate client accounts. Controls to ensure the accuracy of case records, collections, and payments were lacking. We concluded that the agency appeared to lack an understanding of the importance of financial management and neglected its fiduciary responsibilities. As a result, the agency did not accurately collect or distribute financial support payments in a timely manner.

Exhibit 1.1
Child Support Enforcement Division, Department of the Attorney General Organization Chart



These problems were compounded by flaws and ineffective operations in the agency's electronic data processing system, known as KFRI. The system failed to capture in one place all data needed on a case, thus jeopardizing the integrity of client accounts. We did note that the agency was acquiring a new information system to improve case management and expected the system to be operational by September 1994.

Some progress was noted while complaints continued

In our 1995 report, *Follow-Up Report on a Financial Audit of the Department of the Attorney General and a Management Audit of the Child Support Enforcement Agency*, Report No. 95-18, we noted that the agency had addressed a number of the issues and recommendations in our previous audits. However, the agency was still experiencing problems, and clients were continuing to complain about poor performance. Complaints to the Office of the Ombudsman continued to be significant in number, averaging over 170 complaints per year for FY1993-94 through FY1995-96. We concluded the follow-up by encouraging the continuation of efforts to improve management operations, including the effort to successfully implement the still developing automated computer system.

The Agency Counted on its New Computer System to Answer its Critics

The federal government also conducted a review of the KFRI system. The KEIKI project was instituted in 1991 after the federal government determined that the KFRI system would not meet federal requirements. The Child Support Enforcement Agency is counting on the successful implementation of the KEIKI project to address the concerns raised in our previous reports and the issues raised in the federal review. However, the agency's KEIKI system is still not functional. Exhibit 1.2 displays the major events in the development of the KEIKI project from 1991 until the present. In Chapter 2, we outline the causes of the delays in the implementation of the project.

KEIKI project development stalled

After the agency submitted the initial plans for the KEIKI project, the federal Office of Child Support Enforcement authorized the agency to proceed with the KEIKI project in July 1991. In September 1991, the agency hired a consultant to serve as contract monitor. A contract monitor assists in developing implementation plans, providing technical assistance, and monitoring implementation.

The Child Support Enforcement Agency completed and submitted its implementation plan for federal government review in October 1991. Federal approval of the implementation plan was received in May 1992 and authorization to proceed with the Invitation for Bid was issued in January 1993.

Exhibit 1.2
KEIKI Project Development Time Line

1988	Federal Family Support Act requires states to implement child support information system by October 1995.
1991	CSEA initiates Keiki project in 1991. Advanced Planning Document (APD) submitted to the federal government.
	07/91 - Federal government warns CSEA about the short time frame and effort needed to complete the project.
	09/91 - CSEA hires contract monitor to provide technical services.
1992	10/92 - CSEA submits IFB for federal review and federal government requires that CSEA remove imaging until after certification.
1993	01/93 - CSEA advertises the IFB for an implementation contractor.
	08/93 - CSEA executes the contract and requires the original contractor to implement KEIKI system before May 1, 1995 for $20.6 million.
	10/93 - Original contractor submits its preliminary implementation plan, plan was not accepted until March 1994.
1994	03/94 - Former CSEA administrator requests the original contractor implement better planning and communications with state staff.
	08/94 - CSEA allows original contractor to begin programming without a completed detailed system design document.
1995	05/95 - CSEA accepts only 70 percent of the detailed system design document.
	07/95 - Original contractor informs CSEA that implementation by October was not possible.
	08/95 - CSEA and original contractor amend contract. Contractor to complete system testing by January 1996.
	10/95 - Federal government extends October 1995 deadline to October 1997.
1996	01/96 - The Department of Attorney General assigns new administrator to CSEA.
	02/96 - CSEA's contract monitor reports that certain KEIKI functions not fully operational and system test incomplete.
	03/96 - Original contractor reduces staff from 50 to 3 people.
	04/96 - Sub-contractor attempts to continue system implementation and seeks to buy out original contractor.
	09/96 - Buyout unsuccessful and CSEA terminates the contract with the original contractor.
	11/96 - CSEA files suit against the original contractor for breach of contract.
	12/96 - CSEA contracts with a new contractor to complete KEIKI system.
1997	03/97 - CSEA accepts new contractor's project plan which estimates completion of programming by June 1997.
	05/97 - New contractor informs CSEA that October 1997 deadline will not be met and expects to complete the system by January 1998.
	06/97 - GAO issues report on inadequate federal leadership of automation efforts.
	09/97 - New contractor informs CSEA that the system should be ready for a pilot test by April 1, 1998.
	10/97 - CSEA issues notice of default in meeting contract requirements to new contractor.
	11/97 - New contractor informs CSEA programming completed.
1998	01/98 - Contract monitor informs CSEA that April 1, 1998 pilot test dates in jeopardy because conversion and training tasks are late.
	04/98 - Scheduled Pilot Test for KEIKI computer system.
	06/98 - Anticipated date for statewide operation for KEIKI computer system.

CSEA - Child Support Enforcement Agency
IFB - Invitation for Bid

As a result of the January 1993 Invitation for Bid, two proposals were submitted. Though determined to be technically similar, one proposal cost almost twice as much as the other. The agency selected its lower bidder in May 1993 and executed a contract in August 1993 to implement the KEIKI project for $20.6 million. The contract required the successful bidder, hereinafter referred to as the original contractor, to begin work in September 1993 and complete the system for federal certification by May 1995.

The original contractor missed several key milestones, the most significant being the certification deadline, but the agency granted an extension to the contract. Many other states were also not certified by the October 1995 deadline and consequently, the federal government gave states an additional two years to develop certifiable computer systems. By March 1996, the contractor-agency relationship deteriorated to the point that the original contractor stopped work. Eventually, near the end of 1996, the agency terminated the original contract and acquired the services of a second contractor (new contractor).

In November 1996, the State filed a lawsuit against the original contractor for breach of contract. The original contractor later filed claims against the State, the contract monitor, and a subcontractor. As of January 1998, the original contractor, the new contractor, and the contract monitor had been paid over $24.1 million. Additional expenditures are expected to exceed $11.6 million.

Objectives of the Audit

1. Describe the status of the Child Support Enforcement Agency's KEIKI information system project.
2. Assess the adequacy of the agency's management controls to ensure that the project is completed in a cost-effective and timely manner.
3. Make recommendations as appropriate.

Scope and Methodology

Fieldwork included interviews with KEIKI project management and core teams, a subcontractor, the contract monitor, and other agency personnel. We reviewed laws, policies and procedures manuals, other management controls, and previous audits. We reviewed project files, memoranda, correspondence, meeting minutes, and status reports of the agency and the different contractors. We also reviewed reports to the federal government, advanced planning documents, and project documentation.

We examined the systems development effort from project initiation and planning to the system's present status. We also reviewed system development methodology and implementation status, but the focus of our assessment was from January 1993 to the present.

Criteria for the audit included federal regulations, the federal advance planning document process, and federal guides for the development of a child support enforcement system. The agency's Invitation for Bid and contract requirements were also used, as well as the System Development Methodology, adopted by the Information and Communications Services Division of the Department of Budget and Finance.

Although we were not denied access to any documents, agency staff indicated that they could not answer some questions because of the litigation under way.

Our work was performed from January 1997 to February 1998 in accordance with generally accepted government auditing standards.

Chapter 2

KEIKI Project Management Jeopardizes Federal Compliance and Full Reimbursement

In this chapter we assess the Child Support Enforcement Agency's progress in implementing its new automated child support enforcement computer system - KEIKI. The failure to properly plan and manage the project and alleged contractor shortcomings have resulted in costs over $30 million, loss of federal reimbursements, numerous delays, and a system that is still not operational.

Summary of Findings

1. The Child Support Enforcement Agency failed to complete the KEIKI project in time to qualify for federal certification by October 1, 1997. Missing the deadline is the latest in a series of misses and the State will incur additional costs.

2. While planning the project, agency management failed to heed warnings about excessive project scope.

3. Ineffective management controls have hampered installation of the KEIKI system.

The KEIKI System Failed to Meet the Deadline for Federal Certification and Is Still Incomplete

KEIKI has been hampered by management control problems in the planning as well as the implementation phases of the project. The October 1997 deadline has passed and the system is still not operational. Strict federal government requirements may have hindered systems development, but the failure to meet the certification deadline means additional costs to the State. More importantly, the delays mean that the agency will continue to lack adequate computer support to meet its mission. Accurate and timely collection and distribution of child support payments continue to be problematical.

Federal Family Support Act of 1988 mandates a computerized information system

KEIKI, the new automated computer system, is intended to address the 1988 Family Support Act mandate requiring each state to develop and operate a statewide, automated data processing and information retrieval child support enforcement system. All state child support enforcement agency computer systems were required to be certified by October 1, 1997.

To meet federal certification requirements, a system must be comprehensive, operate statewide, meet federal efficiency and effectiveness standards, and adhere to certain integrated system principles. The system must also automate the following eight mandatory child support enforcement functions:[1]

1. Case Initiation: Accept and process cases;

2. Locate: Electronically obtain and verify information on parents such as addresses and assets owned;

3. Establishment: Initiate, track, and monitor paternity establishment and support;

4. Enforcement: Monitor compliance with support orders and initiate enforcement actions;

5. Case Management: Automatically accept and process case updates, perform routine case functions, and monitor case activity;

6. Financial Management: Accept and process payments, record and track collections, and maintain all relevant financial information;

7. Reporting: Generate all required federal reports and reports for management review; and

8. Security and Privacy: Protect against unauthorized access to computer resources and data, protect application software, hardware, documentation and communication, and provide adequate backup.

Failure to meet this requirement could result in federally imposed sanctions and suspension of federal funding for a state's Title IV-D (child support enforcement) and Title IV-A (human services) programs. States are also required to follow the federal government's advance planning document (APD) process which ensures that federal funds for capital investments in automation and technology projects are spent appropriately and wisely.

Upon completion of a project, a state notifies the federal government that the system is operational and ready to be certified. The federal government conducts a comprehensive review to determine that the system meets the Family Support Act requirements. Failure to be certified is viewed as a violation of the state's support enforcement plan. States are allowed to submit a corrective action plan to correct deficiencies before the federal agencies impose penalties.

The agency's computer system, KFRI, was inadequate

In 1990, the federal government found many deficiencies in a review of KFRI, the agency's existing computer system. KFRI did not meet the federal definition of a single, statewide system capable of tracking events, providing an audit trail, and generating federally required reports. Agency operations were instead supported by three separate information systems. KFRI did maintain minimal information on absent and custodial parents and on their children, but the agency used a separate cash receipts system to record collections. In addition, a separate personal computer database system was used to generate legal documents such as support orders. Finally, the systems provided inadequate information on paternity establishment, support enforcement, and financial management.

KEIKI, the proposed solution, was problematic and delayed from the start

Problems in developing KEIKI surfaced at the beginning of the project. The contractor was required to provide discrete work products called deliverables throughout the project. In October 1993, the original contractor submitted the first deliverable, the *preliminary implementation plan,* but the agency did not accept it until March 1994. Other deliverables, with the exception of status reports, required several revisions.

In May 1994, the original contractor submitted the *detailed system design*. This document serves as the foundation for the development of the applications software. Contrary to basic system implementation criteria, the agency permitted the contractor to begin developing application software programs before the approval of the final system design. As of May 1995, only 70 percent of the system design had been approved.

The agency missed the first deadline and was granted an extension

As work progressed, the original contractor reported that the system test would be completed by August 1995. However, the original contractor did not complete its testing and correction of KEIKI applications. Consequently, the agency missed the original October 1995 federal deadline for completing the system and extended the contract to September 1996. The contractor agreed to complete system testing by January 31, 1996. On October 12, 1995, the federal government extended the certification deadline for all states to October 1, 1997.

Original contractor contributed to project delays

The original contractor's apparently inadequate performance contributed to project delays. At each major benchmark in system development, the original contractor failed to submit a satisfactory product.

The agency's contract monitor, retained in part to provide technical assistance and monitor implementation, regularly questioned the contractor's ability to properly estimate the effort needed for tasks and the

agency criticized the lack of details in the contractor's deliverables. The preliminary implementation plan which cost the agency over $147,000 required five revisions. The detailed systems design document cost over $595,000 and was delayed for almost one year before a final document was accepted. The requirements specifications document, which describes the State's functional and technical requirements as detailed in the Invitation for Bid, cost over $627,000 and also required four revisions. Originally scheduled for acceptance in December 1993, the document was accepted by the agency in April 1994. Finally, the original contractor's system test plan required five revisions and was accepted by the agency 10 months later than originally scheduled.

Review finds KEIKI system incomplete

In January 1996, the agency formally tested the KEIKI system for the first time, finding it incomplete because the system failed to produce desired outcomes. In March 1996, the original contractor reduced its staff from 50 to 3 and instituted substantial work stoppage although the contract was still in full force. Subsequently, the agency terminated the contract with the original contractor and in November 1996, sued the company for breach of contract. In December 1996, the agency hired a second contractor (new contractor) to complete the system.

The new contractor, facing a September 30, 1997 deadline, fell behind schedule and proposed a plan in May 1997 to have a pilot test by December 31, 1997. When the contractor missed the October 1997 deadline, the agency issued a letter of default. The contractor also missed the December 1997 pilot test date that it had proposed and expected to have a pilot test by April 1, 1998. However, the agency's contract monitor recently informed the agency that the April 1998 pilot test date may be in jeopardy because the conversion and training phases are late.

Exhibit 2.1 summarizes the tasks that must be completed in a basic system development life cycle. The original contractor partially completed the design of the system and had begun developing programs. The new contractor completed the design, program development, and unit testing for the KEIKI system, and is now performing system and acceptance tests.

Inadequate federal and state government leadership may have hindered systems development

Inadequate leadership decisions at both the federal and state levels contributed to the problems in developing the KEIKI system. In June 1997, the United States General Accounting Office (GAO) found that the federal child support enforcement agency had failed to establish levels of oversight and technical review commensurate with the size and complexity of the nationwide project. GAO stated that the agency delayed defining requirements, failed to identify and correct problems early in the development process, and required that systems be transferred from another state without adequate assessment.

Exhibit 2.1
Tasks Needed to be Completed in a Basic System Development Life Cycle

Analysis	System developers and users determine functional, quality, and architectural requirements.
Design	Systems are developed using the appropriate system solution and systems architectures (i.e. software, hardware, security, communications, and data management).
Coding	Software is written to support required functional processing identified by users.
Unit Testing	Individual programs are tested to demonstrate their functionality and performance characteristics.
System Test	Test data, test criteria, and testing sequences are created and implemented to confirm the technical and functional stability of the system and to validate federal and state requirements.
Data Conversion	Data from the old system(s) are moved to the new system.
Acceptance Test	Users execute tests on the entire system to ensure the system meets requirements specified in the functional design and to confirm that the system is complete, fully tested, reliable, and ready for pilot operations.
Training	The contractor trains users on the new system.
Pilot Test	The new system is used in a live environment at a designated pilot location.
System Installation and Roll-Out	The pilot test is expanded to additional branch offices, and ends with the statewide implementation of the system in a live production environment.

Of the problems cited by GAO, the federal government's policy requiring states to use a system transferred from another state was detrimental to Hawaii's system development efforts. The intent of this policy was to shorten the development process by using existing software as much as possible. However, differences in the way states administer the federal child support programs and state organizational structures reduced the effectiveness of transferring another state's system. The State's original contractor experienced delays in the development process which may have resulted from this transfer policy. The amount of redesigning and recoding required was more than what the original contractor had anticipated. The federal government later modified the transfer requirement to allow states to use a transferred system as an option.

However, the federal agency's failures do not eliminate the need for adequate planning by the State. Hawaii's child support enforcement agency is responsible for administering and operating the federal child support program for this state. Congress enacted the Family Support Act in 1988 and afforded states a deadline of October 1995 to implement a statewide system. The deadline was extended to October 1997. Hawaii's agency did not secure an implementation contractor until 1993, leaving only two years under the original deadline to implement a system. Although the agency faced a short time frame, it attempted to develop a system of excessive scope. The agency's failure to meet the two federal deadlines in large part resulted from the agency's overly ambitious plans.

The Child Support Enforcement Agency needs to improve its computerization planning. It submitted to the 1998 Legislature a request for an appropriation for more personnel to maintain and support the KEIKI system. The agency's testimony reveals a reliance on the word of KEIKI project contractors rather than a support and maintenance plan developed from a detailed assessment of maintenance and support needs. We believe that the agency's request for more personnel should be based upon a support and maintenance plan that includes an evaluation of the agency's data processing organizational structure and plans to maintain and support the system, accommodate future enhancements, and efficiently allocate responsibilities.

Management Failed to Heed Warnings about Excessive Project Scope

The Child Support Enforcement Agency failed to heed warnings about the excessive scope of the proposed KEIKI system and made inadequate adjustments in response to those concerns. Consequently, the agency attempted to implement an unrealistic project within a relatively tight time frame.

Management insisted on unrealistic objectives from the project's inception

The agency developed unrealistic goals for the KEIKI project. When the agency initiated the KEIKI project in 1991, the scope included the incorporation of imaging, voice response capabilities and automated case assessments. Imaging enables an entire page of text to be scanned or "photographed" into the computer at once, eliminating the need to type the information into the computer. Voice response allows a user to request account information from the computer system over the telephone by pressing the phone's number pad. Automated case assessment enables the computer to automatically process cases based on analyzed information combined with certain events or time factors. Rather than waiting for the user to initiate the next step, automated case assessment allows the computer to assess the status of a case and take appropriate action.

Successfully implemented, all of these features can contribute to improving the efficiency of an agency's operations. However, in 1992 such features were considered unproven in state child support enforcement systems. No other state child support information system had such features at that time. However, the agency maintained this strategy even in light of the requirement to transfer a system from another state. Given the limited time frame and the fact that such features were not required for certification, the agency made it more difficult to comply with federal requirements. Exhibit 2.2 is a table comparing the functions required by the federal government with the functions that the agency planned to incorporate in the project.

Exhibit 2.2
Comparison of Functional Requirements Between the Federal Minimum Requirements and the KEIKI Systems Project

Federal Requirements	KEIKI Requirements
Case Initiation	Case Initiation
Locate	Locate
Establishment	Establishment
Case Management	Case Management
Enforcement	Enforcement
Financial Management	Financial Management
Reporting	Reporting
Security and Privacy	Security and Privacy
	Split Screen Processing
	On-line Policy and Procedures
	Accept Imaged Documents
	Accept Voice Response System Input
	Computer Assisted Decision Making and Automated Event Driven Case Processing

Source: Invitation for Bid, 1991, Child Support Enforcement Agency

As early as July 1991, the federal Office of Child Support Enforcement informed the agency that even implementing a system that would satisfy the *minimum* certification requirements before the October 1995 deadline would be an effort of extreme magnitude. The federal office considered four years to be a very short time frame to implement a computer system meeting minimum federal certification requirements.

State computer agency was also concerned about project scope

The agency also failed to heed warnings from the State's Information and Communications Services Division (ICSD), Department of Budget and Finance. In November 1992, the agency submitted a draft of the proposed specifications for the KEIKI project to the Information and Communications Services Division for review. The Invitation for Bid is the document that contains the specifications for the proposed computer system and is used as the basis for submitting a proposal for the system development contract. The division is assigned various operational and oversight responsibilities in the areas of computer systems and information processing. The division commented that the agency's plans specified in the draft bid were very ambitious and that such a system might not be fully implemented within the time frame specified in the bid guidelines. However, the adjustments made by the agency did not reduce the project scope.

Adjustments to project scope were inadequate

The federal Office of Child Support Enforcement also reviewed the Invitation for Bid and recommended that the state agency remove the document imaging requirement until after the new system had been certified. The office further recommended that the proposed time frame for completion be extended from 18 months to 24 months. The state agency did incorporate the time line recommendations into the revised bid document. However, the agency still required the implementation contractor to incorporate imaging into the design of the system.

The agency selected the original contractor in May 1993. A contract to develop the KEIKI system was executed in August 1993, approximately two years before the original federal certification deadline of October 1995. Although the deadline was subsequently extended for two years to October 1997, the agency initially proceeded to implement a project that was more extensive than the one required for federal certification with only a two year time frame. Even after missing the first deadline, the agency still continued to require the original contractor to incorporate imaging and the voice response unit into the system.

KEIKI now divided into two phases

In January 1996, a new administrator for the agency implemented several measures in an attempt to complete the system. The administrator found the progress of the project unsatisfactory and warned the original

contractor that corrective measures must be implemented or termination would ensue. The agency eventually terminated the contract and executed a new contract with the new contractor to install the system.

The new contract was divided into two phases. Phase one required the new contractor to implement by the October 1997 deadline only those functional components required for federal certification and basic business processes. Phase two required that, by October 1998, the new contractor implement all functional specifications of the KEIKI system project contained in the 1993 Invitation for Bid, with the exception of imaging. The imaging requirement was specifically excluded from the new contractor's responsibilities. However, as of July 1997, separation of the functional components into the two phases had not yet been completed. We believe that the agency could have avoided the extra effort and time to split the functional components into two phases if more credence had been given to the Information and Communications Services Division's warnings early on.

Ineffective Management Controls During Implementation Hampered the KEIKI Project

Management controls include the organization, methods, and procedures used to achieve objectives. These include planning, organizing, directing, and controlling a program or project. Failure to implement such controls can prevent an agency from reaching its objectives and using resources prudently.

The Child Support Enforcement Agency's failure to exert proper management controls during the planning and implementation of the KEIKI project played a major role in the agency's current predicament. While planning the KEIKI project, the agency failed to heed warnings and proceeded to develop an unrealistic plan. Once the project implementation phase was started, management failed to establish management controls such as creating a steering committee to resolve problems and assigning sufficient technical resources. The agency also allowed the original contractor to proceed without a finalized design and failed to ensure computer programs were adequately documented. These failures led to numerous delays and culminated in an incomplete system.

The agency also failed to effectively use project implementation benchmarks or deliverables to track and monitor the project and failed to ensure that adequate resources were committed to the project.

An essential step in planning is to identify the resources needed to ensure successful project implementation. For example, KEIKI's planning documents called for a project steering committee to facilitate project implementation decisions, resolve issues, provide guidance on policies,

and help to ensure timely system delivery and installation. Planning documents also noted that state technical staff would be "heavily involved"[2] with the development and implementation of the KEIKI system. We found that neither the steering committee nor the promised state technical support were used.

Steering committee was not created

The agency initially informed the federal government that the project would consist of a multi-layered structure to ensure that decisions are made at the appropriate levels. This proposed structure is illustrated in Exhibit 2.3. However, the steering committee was never formed.

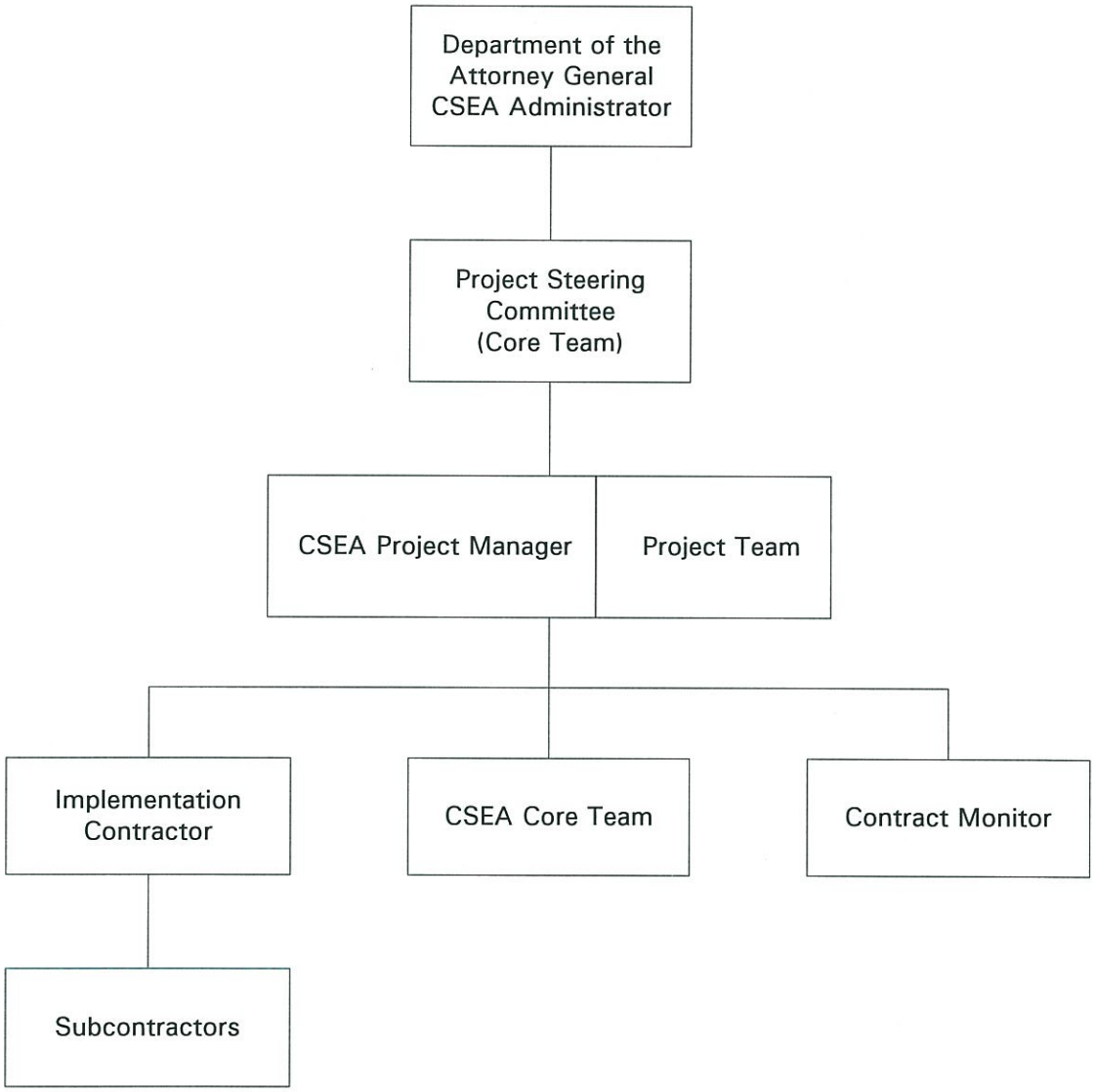
The absence of a formal steering committee to provide objective and consistent problem resolution affected system implementation. For example, the review and approval of the preliminary implementation plan developed by the consultant required five iterations. The original contractor submitted the original preliminary implementation plan in October 1993 and the agency approved it five months later in March 1994.

We were unable to make a definitive determination of the reasonableness of the rejections of the plan. The agency apparently was dissatisfied by the lack of detail. Although the original contractor sometimes criticized the changes as unnecessary, the company continued to meet the agency's demands to provide more detail. A steering committee can rank and prioritize demands and determine a project direction that provides the most benefit to the agency. We believe that if a properly functioning steering committee had been organized, many of the agency-contractor differences could have been resolved.

The agency reported to the federal government that the agency's core team was the steering committee. The core team consists of the functional manager from the project management team and supervisors from the various sections of the agency. We found that the agency's core team was never officially identified as the steering committee. In addition, the core team lacked the impartiality characteristic of a steering committee.

The State's system development methodology indicates that a steering committee provides a consistent and formal mechanism for impartial review and control; notes that members could consist of representatives from different functions, business processes, or divisions; and argues that they should possess the ability to speak and decide on behalf of the entity being represented. We found that the agency's use of the core team in place of a steering committee was not in keeping with the State's methodology. While the core team may represent different agency functions, it cannot be impartial because core team members have been intricately involved in the project.

Exhibit 2.3
Organization of Child Support Enforcement Agency's KEIKI Project*



*Proposed organization structure as reported to the federal government.

CSEA - Child Support Enforcement Agency

Technical staff was not assigned

In addition, the agency failed to provide sufficient state technical staff to the project. In its initial plan, the agency assured the federal government that state technical staff would be "heavily involved."[3] The agency projected the full-time involvement of a project leader, two systems analysts, two programmer/analysts, and a junior programmer. A data processing manager and database and technical support were also to participate on a part-time basis. We found that the agency's project manager and technical specialist were the only state technical staff assigned full-time to the project. The attorney general department's data processing manager, systems analyst, and two programmer/analysts provided only part-time assistance.

In addition, the department's data processing staff participated only on a task-by-task basis. These staff are primarily responsible for maintaining the old system, KFRI, not implementing KEIKI.

The federal government emphasized the importance of assigning sufficient state staff. The State has final responsibility for the system and sufficient staff is required to effectively monitor and coordinate project activities with the assistance of the contract monitor. The agency's failure to follow the federal government's recommendation may have affected its ability to review deliverables and contributed to project delays.

Failure to assign state technical staff early in the project limited the amount of involvement of the technical staff during the implementation of the system. The attorney general's data processing personnel were not involved in the design and in the early stages of development for KEIKI. In addition, they were not familiar with the programming language of the KEIKI system. Under these conditions, increasing their involvement during implementation may actually be detrimental and inhibit progress due to the time needed to become familiar with the new system. One misstep in programming by the attorney general's data processing staff may give the contractor an excuse to claim that the State directly caused the delays in implementation. Because they were not involved throughout the project, the data processing staff received limited hands-on training. This limits their effectiveness in supporting and maintaining the system when the contractor leaves.

Agency management did not effectively utilize state resources

The agency also failed to effectively utilize state resources to assist in project implementation. The Information and Communications Services Division is responsible for operating, maintaining, and supporting the state data center. This includes supporting all hardware and peripheral equipment, as well as providing planning and support activities and database administration services. The division provides strategic planning to state agencies in the areas of computer technology and communications processing. It also serves in an oversight role for applications development for software developed, modified, and run on the data center mainframes.

The Information Communications and Services Division can effectively represent state interests in the development of any new computer system. But the Child Support Enforcement Agency hired a private firm to serve as a contract monitor to ensure the completion of the implementation contract. The contract monitor's general responsibilities and functions include providing technical assistance, project management, and quality control. The contract monitor is obligated by contract to make every effort to ensure that the contractor completes the system as specified in the implementation contract.

We believe that the division could have effectively served in this capacity when the project implementation phase got under way. In addition, the contract monitor's obligations terminate with the contract period, whereas the division's involvement can be ongoing in its role to maintain and support the new computer system.

Earlier and regular involvement by ICSD reduces delays

The agency called upon the division only on an as-needed basis when the development effort specifically involved the division. For example, the division was called to assist with the hardware acquisition, installation, and networking required for the KEIKI project. This work resulted in delays because the child support agency needed to negotiate usage requirements with other state agencies. There were also additional wiring and air-conditioning requirements that had to be met. Earlier involvement and consultation by the division on such issues could have helped to identify problems sooner or could have reduced or eliminated some of the delays caused by poor planning; the coordination elements could have been identified earlier in the process.

The agency has now established twice-a-month meetings with Information and Communications Services Division staff, but this may not be sufficient if issues are not addressed promptly. For example, a recent issue concerns the division's control over the computer system during the planned pilot test date of April 1, 1998. For the pilot test, the contractor needs unhindered access to test the system and to have the division perform normal operating procedures. The division does not perform normal operating procedures for test situations. In non-test situations, the division controls the KEIKI computer system which limits the contractor's access to the system and prevents the contractor from fixing problems quickly. If this issue is not addressed, the agency's pilot test would be delayed.

This is not a new concern. The division initially advised the agency of its policy in 1992 during its review of the Invitation for Bids. The concern arose again in November 1994 with the original contractor. Although the issue may not be critical at this point, sufficient time should be given to permit the agency and division to resolve this issue without causing further delays in implementation. Furthermore, the new contractor's

plans to implement multiple processes of the new KEIKI system concurrently further supports the need for more oversight by the Information and Communications Services Division. The division should therefore be more involved in the KEIKI system implementation to deal with these types of issues.

Project implementation deliverables were ineffectively utilized

The KEIKI project contract can be characterized as a series of deliverables from the contractor which conclude with a completed operational computer system. Deliverables are defined in the contract and can represent the contractor's plans for implementation, status reports, or work products. While a deliverable may vary from a weekly status report to a key element of the computer system, all deliverables must be reviewed and approved by the agency before any partial payment on the contract is made. Deliverables provide the opportunity to review and correct any problems that may be developing and help to hold the contractor accountable. We found that the Child Support Enforcement Agency did not make effective use of deliverables to track and monitor the project.

The agency ineffectively used the detailed system design document as a management control. This document: 1) provides the basis for all development activities, 2) identifies the programming solution, and 3) provides the specifications for the new computer program modules. Any programming developed before the system design document is finalized and accepted may not fulfill the requirements identified in the final plan. As early as August 1994, the agency was aware that the original contractor had commenced program development efforts without an approved detailed system design document, but allowed the contractor to continue.

Consequently, the agency did not know which program elements of the new system had been implemented and were operational. In Summer 1996 the agency performed detailed walk-throughs of the KEIKI system to determine what functions had been implemented and found the system not fully operational.

The failure to use deliverables to manage and control the project and its workflow has resulted in considerable delays. The current contractor had to work backwards from each of the working program elements to link these to the system design document to determine what parts of the total system were completed and functional and what areas must still be completed.

The agency did not ensure the system could be maintained after implementation

The Child Support Enforcement Agency also failed to ensure that the products required in the contract could serve as effective management controls. For example, the program specifications developed by the contractor were insufficient. Proper documentation is crucial for future

system maintenance and support and should provide sufficient detail about the data elements used, the logic flow, and how a computer program ties in with other computer programs. After a contractor has completed the system and leaves the project, the agency is responsible for running the system and fixing any errors that occur. The contractor's systems documentation provides the only guidance the agency programming staff can rely on to fix any problems occurring in the system.

The agency claims that the documentation is an end deliverable that is due when the contractor turns over the system, and that the original contractor refused to allow the agency periodic review of program specifications. Failing to completely and properly assess program specifications before the system is turned over to the agency prevents the agency from adequately reviewing and approving system development at distinct stages.

Adequate system documentation is an essential aspect of the implementation of any computer system. Proper program development practices require that program documentation and specifications be completed as each program module is finalized, not after the entire system of integrated programs has been developed. The attorney general should ensure that any future information systems project requires the contractor to provide clear and complete written products that allow the agency to conduct periodic checks on the development of the system.

Poor management controls ultimately caused the agency to miss the October 1997 deadline

The management control problems noted above, coupled with the agency's excessive scope, may have affected the new contractor's ability to complete the system by the October 1997 deadline. Management's failure to ensure proper documentation about the KEIKI project, including sufficient detail about the data elements used, the logic flow, and how each computer program relates to other programs, makes it difficult to accurately assess the status of the project system.

The lack of proper documentation made it difficult for the new contractor to accurately estimate the amount of work required to complete the system. When the system was not completed by the October 1997 deadline, the agency notified the new contractor that it was in default of the contract. The new contractor claimed that it executed the contract to complete the system by October 1997 based on an assessment "intended to validate the status, progress and quality of the system" which "was relied upon by both the State and" the contractor "to establish contract price and schedule."[4] The new contractor stated that the assessment underestimated the remaining level of effort required to complete contract implementation. The assessment was done by yet another contractor.

The underestimation may have created delays. In the new contractor's initially approved schedule, programming was scheduled to be completed by May 1997. The November 1997 contractor's monthly report stated that programming was completed on November 14, 1997, which is about six months behind initial estimates. The new contractor now expects to have a pilot test of the system by April 1998, which is also about six months after the October 1997 deadline.

KEIKI implementation costs exceed planned costs

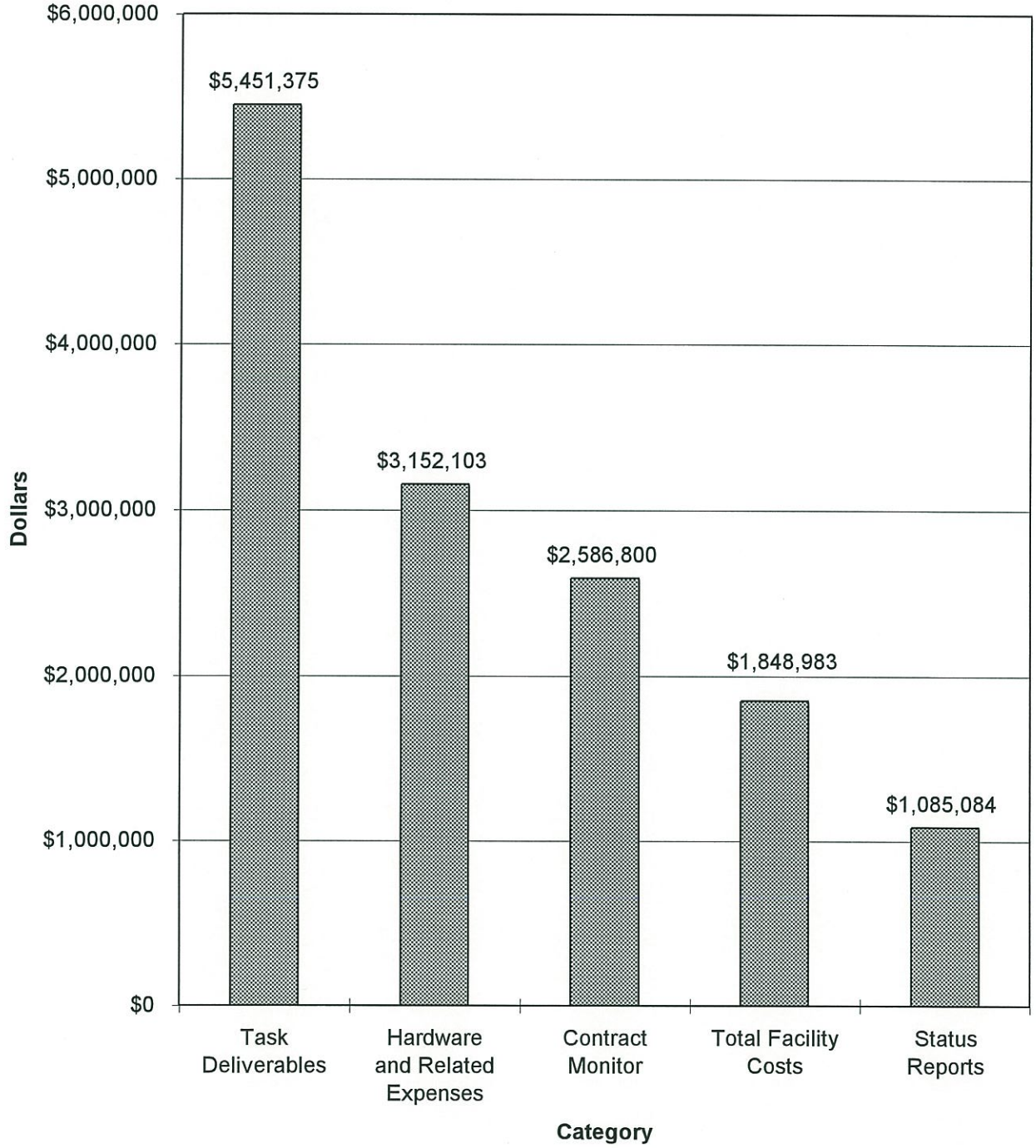
The costs of implementing this project have already exceeded initial projections because the project was poorly planned and monitored. In 1991, the initial planning documents submitted to the federal government for the KEIKI project estimated that the system would be completed and ready to be certified within 21 months at a cost of $13.8 million. By the time the implementation contract was executed in 1993 the projected cost had risen to $20.6 million, almost $7 million more than the original projection. An August 1995 contract amendment increased the implementation contract cost to $25.3 million. The project remains incomplete more than 68 months after the initial planning documents received federal approval.

By the end of 1996, the agency had paid the original contractor $11.6 million and was executing a $19.9 million contract with the new contractor. This $31.5 million cost far exceeds the agency's original projections and does not take into account the projected $4.3 million in total costs for the contract monitor. Total expenditures under the original contractor are shown in Exhibit 2.4. As of January 1998, the agency had paid the new contractor almost $9.7 million. Exhibit 2.5 shows total cost of the project to be $35.7 million with expenditures as of January 1998 to be $24.1 million. The total cost will be more than two and a half times the original estimate of $13.8 million.

Failure to meet certification deadline costs the State federal reimbursements

A major effect of not meeting the certification deadline will be the additional financial cost to the State. The federal government agreed to reimburse states for 90 percent of the costs that had been expended by October 1, 1995. However, the 1996 Federal Welfare Reform Act imposed additional requirements upon state child support information systems. In doing so the welfare reform act extended the 90 percent reimbursement for all expenditures approved by the federal government *prior* to October 1, 1995 but expended *by* October 1, 1997. Subsequent to October 1997, expenditures for improved functionality linked to the welfare reform act would be eligible for reimbursement at an 80 percent rate. All other project related expenditures after October 1, 1997 will be subject to the normal 66 percent federal reimbursement rate.

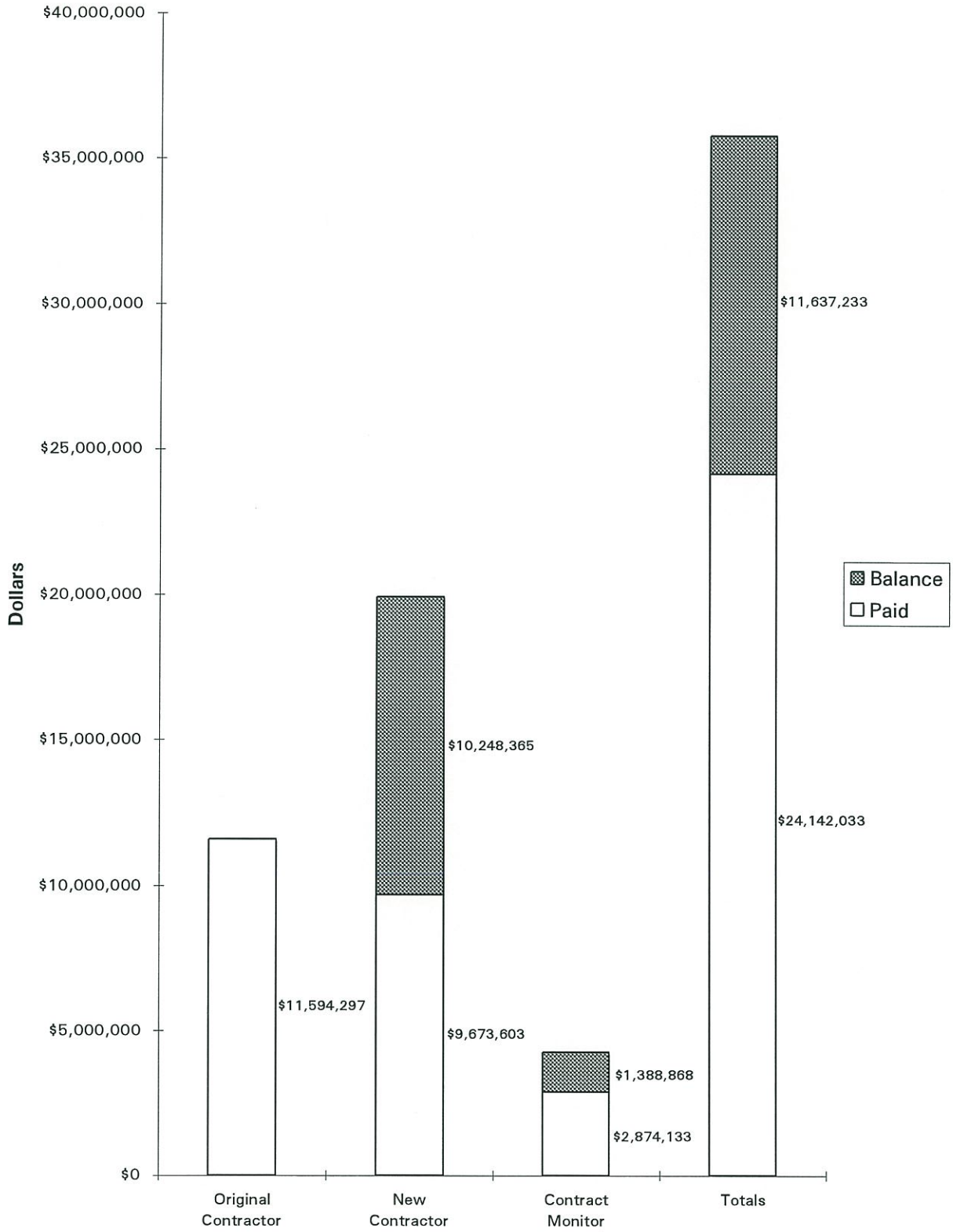
Exhibit 2.4
KEIKI Project Expenditures from January 1992 to February 1997



Task Deliverables are major deliverables such as the preliminary implementation plan and the detailed system design document.

Facility Costs for the premises were included in the contract.

Exhibit 2.5
Expenditures for Contractors for January 1992 to January 1998



As of January 1998, the agency had a balance of $10.2 million remaining on the contract to pay the new contractor. Failure to complete the system before the October 1, 1997 deadline will mean that the proportion of the payment which must be paid by the State will increase by either 10 or 24 percent, depending upon the applicable reimbursement formula. For functional components related to welfare reform, the State loses an additional 10 percent in federal reimbursements. For other functional components, the State loses an additional 24 percent in federal reimbursements. Additional costs incurred by the State will thus range between $1.02 million and $2.45 million.

For the agency's contract monitor, the agency extended the contract with the contract monitor for September 1, 1997 to December 31, 1998 for $1,120,912. If the system had been completed by the October 1997 deadline, approximately $1.0 million would not have to be spent because the agency would not have required the contract monitor's services.

The agency may incur costs in addition to the amounts discussed above. The new contractor's correspondence with the agency indicates that the contractor disagrees with the agency as to what functional components related to welfare reform are included in the contract executed in December 1996. The new contractor has also indicated that it may request a price adjustment. If implementation proceeds past December 1998, the agency may need to extend the contract monitor's contract. Finally, the federal government will impose penalties on Hawaii for not completing the system on time, but specific penalties have not been finalized.

Some improvements were implemented

As noted previously, the new administrator implemented some measures to complete the system for certification. In addition to adjusting the scope, the administrator established a weekly management status meeting. Although not officially named the project steering committee, we found this group had the effect of a steering committee to set priorities and direction for the project. During meetings, vendor and state project managers brief the administrator and the contractor's project director to address administrative level issues and decisions.

Additional corrective measures include adding more staff and increasing visibility into the new contractor's work. The attorney general's data processing staff was increased from three to five programmer/analysts. The data processing staff help in converting information from the old system to the new system. The agency created more check points for reviewing design specifications and has required the new contractor to develop logic charts that the agency reviews to ensure each function is completely tested. The agency also has access to several of the new contractor's specialized software programs that report on project progress, track unresolved issues, and produce systems documentation.

However, any further needless delays may result in additional litigation. The State has already notified the new contractor that the company is in default of the contract and the contractor has stated that it may submit a request to revise the contract. Although the agency implemented corrective measures that may have been based on problems encountered with the original contractor, the agency can still improve by getting earlier and greater involvement of the Information and Communication Services Division.

Conclusion

Ultimately, the failure to complete the KEIKI project in a timely manner prevents the agency from fully accomplishing its mission. Children and families are not likely to receive support payments in a timely manner and non-custodial parents continue to be affected by inaccurate tracking and record keeping.

Computerization can greatly enhance the ability of public agencies to meet their missions. However, as demonstrated in this report, computerization can be very costly and time consuming. It is therefore essential that state agencies such as the Child Support Enforcement Agency ensure that computerization projects have realistic scopes, properly involve and utilize available resources, and contain sufficient controls to permit effective monitoring of the project while they are being implemented.

Recommendations

1. We recommend that the Child Support Enforcement Agency complete a support and maintenance plan. The plan should include:

    a. An evaluation of its data processing organizational structure to best serve the agency, maintain and support the system, accommodate future enhancements, and efficiently allocate responsibilities; and

    b. An analysis of positions that can be transferred or eliminated due to the more efficient computer system and reduced work processes.

2. We recommend that the agency increase the involvement of the Information and Communications Services Division in the implementation of the system and give greater weight to the division's recommendations.

Notes

Chapter 2

1. U.S., Department of Health and Human Services, Administration for Children and Families, *Automated Systems for Child Support Enforcement: A Guide for States,* Office of Child Support Enforcement, June 1993, p. I-4.

2. Hawaii, Child Support Enforcement Agency, *Advance Planning Document for an Automated Statewide Child Support Enforcement System in Hawaii*, Honolulu, September 1991, p. IX-5.

3. Ibid., p. IX-5.

4. Letter to Margery S. Bronster, Attorney General, State of Hawaii, from Audrey Rowe, Sr. Vice President and General Manager, Children and Family Services, Lockheed Martin, November 21, 1997.

Response of the Affected Agency

Comments on Agency Response

We transmitted a draft of this report to the Department of the Attorney General on March 23, 1998. A copy of the transmittal letter to the Attorney General is included as Attachment 1. The Attorney General's response is included as Attachment 2.

The department found that the report contained a "quantity of good information and constructive assessments." However, the department emphasizes that it instigated litigation over "the vendor's non-performance of contractual responsibilities," claiming that the vendor's non-performance caused the problems on the KEIKI project and that any difference in the agency's performance would not "materially alter the ultimate non-performance of the developer." The department believes that any "conclusive" findings in the audit report may be premature and that the report should acknowledge the department's contention of the vendor's non-performance and other circumstances. Among those circumstances, according to the department, is that "neither the federal authorities nor the two bidders believed the scope so excessive that federal monies were not approved or that bidders were unwilling to accept the assignment." Also, the department believes that because the original vendor was contracted to finalize plans, manage the project, and deliver requirements, the vendor should be responsible for planning poorly and exceeding projected costs. However, the department expressed appreciation for the audit recommendations and intends to incorporate them into practice.

We are pleased that the department agrees with our recommendations and will be changing how the Child Support Enforcement Agency performs its work. We continue to maintain, however, that the agency is still ultimately responsible for the installation of a certified computer system. Its responsibilities did not end because contracts were executed. We have noted that the vendors contributed to project delays and the agency was dissatisfied with the vendors' work. We also noted that federal authorities were criticized too. We also noted that federal authorities were criticized too. While we can appreciate the department's desire that the failures of the contractors be regarded by us as the sole cause of the delay, our audit evidence taken as a whole has led us to other conclusions.

For example, the federal government informed the agency that four years was a short time frame and would require an "effort of extreme magnitude" to implement a system meeting certification requirements. By the time the contract was signed, only two years were left to complete the project. The agency insisted on a system that exceeded the minimum certification requirements despite federal warnings that the scope was

excessive. Throughout the project, the federal agency emphasized the importance of having sufficient state staff to ensure the success of the project. But the number of staff promised by the department's reports to the federal authorities were not present. And it was the written statements by the agency administrator to the federal authorities as well as assertions by the new contractor that led us to conclude that the condition of the system affected the new contractor's assessment.

With costs having risen more than two and a half times the original estimate, the State's interest is best served by the expeditious implementation of a functioning system—both for the purpose of fulfilling the agency's mission as well as to avoid more federal penalties for missing the certification deadline. The experience of the Child Support Enforcement Agency should serve as a hard lesson learned for all of state government.

The department suggested some technical changes in the draft which we have incorporated in our published report.

STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917

MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

March 23, 1998

COPY

The Honorable Margery S. Bronster
Attorney General
Department of the Attorney General
Hale Auhau
425 Queen Street
Honolulu, Hawaii 96813

Dear Attorney General Bronster:

Enclosed for your information are three copies, numbered 6 to 8 of our draft report, *Audit of the Child Support Enforcement Agency's Information Systems*. We ask that you telephone us by Wednesday, March 25, 1998, on whether or not you intend to comment on our recommendations. If you wish your comments to be included in the report, please submit them no later than Wednesday, April 1, 1998.

The Governor, and presiding officers of the two houses of the Legislature have also been provided copies of this draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

Sincerely,

Marion M. Higa
State Auditor

Enclosures

ATTACHMENT 2

BENJAMIN J. CAYETANO
GOVERNOR

MARGERY S. BRONSTER
ATTORNEY GENERAL

JOHN W. ANDERSON
FIRST DEPUTY ATTORNEY GENERAL

STATE OF HAWAII
DEPARTMENT OF THE ATTORNEY GENERAL
425 QUEEN STREET
HONOLULU, HAWAII 96813
(808) 586-1500

April 1, 1998

RECEIVED
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OFC. OF THE AUDITOR
STATE OF HAWAII

Ms. Marion M. Higa
State Auditor
Office of the Auditor
State of Hawaii
465 South King Street, Room 500
Honolulu, Hawaii 96813

Dear Ms. Higa:

Please find attached the response of the Child Support Enforcement Agency (CSEA) to the draft copy of your report entitled "Audit of the Implementation of the Child Support Enforcement Agency's Information System". There is one point that I wish to emphasize regarding the CSEA responses and the situation of the project in general. While we would never contend that the State performance or circumstances cannot be improved, the State has commenced litigation and is prepared to fully pursue our contention that non-performance of contractual responsibilities on the part of the system developer is what caused the problems of the KEIKI project. Therefore, we believe that any report on the KEIKI project should acknowledge that contention and the circumstances on which we are basing our lawsuit. Any "conclusive" findings of the Audit Report may very well be premature especially if the courts find in favor of the State which we fully expect when the facts of the case are presented. Likewise, when referring to the "new contractor", the Audit Report should be considering that the vendor has not performed up to the requirements of their contract. On Page 23 of the report, some credence appears to be given to reports by a vendor who has been found in default by the State. Again, we believe that contentions by a vendor motivated by self-interests do not necessarily represent facts. We ask that the reports not prejudice situations that are currently on-going and for which all the facts may not be presently "in the open" or may not have been available to auditors.

Thank you for the opportunity to present comments to the draft report. Please contact me with any questions.

Very truly yours,

John W. Anderson

for Margery S. Bronster
Attorney General

BENJAMIN J. CAYETANO
GOVERNOR

MARGERY S. BRONSTER
ATTORNEY GENERAL

MICHAEL L. MEANEY
ADMINISTRATOR

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March 31, 1998

Ms. Marion M. Higa
State Auditor
Office of the Auditor
State of Hawaii
465 South King Street, Room 500
Honolulu, Hawaii 96813

Dear Ms. Higa:

The Child Support Enforcement Agency (CSEA) has received the draft copy of your report entitled "Audit of the Implementation of the Child Support Enforcement Agency's Information System" and we appreciate the opportunity to comment on its findings. In reviewing the report, we find that it contains a quantity of good information and constructive assessments. CSEA also appreciates the recommendations provided by the Auditor's Office.

CSEA recognizes that complex and lengthy systems development projects of this type provide voluminous amounts of data to examine and factors to consider. This results in choices being made on what information is of more significance than other data. CSEA would like to use this opportunity to clarify certain areas where we believe that other information will further illuminate the overall picture. It is our hope that this information will complement the information contained in the draft and perhaps, modify some of the assessments.

CSEA's comments on the report are as follows:

1. Page 2: The report identifies the numbers of cases handled in FY-1995 (76,301) and the approximate amount collected ($74 million).[1] Hawaii CSEA's rate of collections has consistently ranked in the top twenty percent of the national average.[2] CSEA has

[1] For FY 1997, CSEA processed approximately 95,766 cases collecting approximately $85 million with reimbursements to the State General Fund of approximately $5.3 million. Both figures thus continue to grow.
[2] For the period cited (FY-1995), Hawaii ranked ninth (9th) in the nation for collections rate. U.S. Dept. of Health and Human Services, Child Support Enforcement Nineteenth Annual Report to Congress , Sep. 30, 1994; U.S. News and World Report, Dec. 18, 1995.

achieved this positive performance despite being understaffed, as has been reported in other audits, enduring significant program cuts, and utilizing an archaic computer system that was implemented well before the days of federal certification requirements. As a result, CSEA feels that sensationalistic statements such as "*inadequate performance*" and "*seriously deficient*" methods are both inaccurate and serve no useful purpose in this review. While we agree that improvements can and must be made in particular areas, the overall performance of CSEA, when compared against collections on a national scale, suggests that our performance is not "inadequate". Additionally, it is important to note that complaints will always exist in the highly-emotional area of child support where non-custodial parents believe they are paying too much and custodial parents believe they are receiving too little.

2. Pages 14 through 16: The report concludes that "*The Child Support Enforcement Agency failed to heed warnings about the excessive scope of the proposed KEIKI system and made inadequate adjustments in response to those concerns.*" The report goes on to state that "*the agency attempted to implement an unrealistic project within a relatively tight time frame*". CSEA believes that further information about the process, circumstances, and, especially, the federal certification requirements is warranted on this topic. The Audit Report states on Page 15 that "*However, in 1992 such features* [imaging, voice response, automated case assessment] *were considered unproven in state child support enforcement systems. No other state child support information system had such features at that time.*" CSEA would like to note the following:

   a. Concerning imaging: In response to comments by the federal government in 1992, the State <u>eliminated</u> the requirement for imaging from the contract with the original vendor. The only requirement for anything related to imaging was that the new system be designed so as not to preclude the use of imaging in the future. In fact, the five volume Detailed System Design Document (DSDD), which provides the specifics of the software design, devotes only 10 pages (out of thousands for the document) to a description of how imaging might be incorporated into the system at some later date. While the audit report correctly states that "*The imaging requirement was specifically excluded from the new* [circa 1997] *contractor's responsibility*", it should be noted that this clause was included in the contract to reinforce that imaging was not included in the certifiable system. Since the original scope of work was only modified and not completely regenerated to account for the change in vendors, the clause was added to recognize that no other mention of imaging was desired beyond what had been described in the DSDD.

   b. Concerning voice response unit (VRU): At least 50 percent of the states – for example, Massachusetts, Pennsylvania, North Carolina, Missouri, and Texas – now employ VRU's as integral components of their child support enforcement programs funded and implemented (as is CSEA's) under the federal initiatives

for certified child support enforcement systems. VRU's are procured as stand-alone systems from turnkey companies and the implementation effort is minor compared to the overall software development process.

c. Concerning automated case assessment: while the report identifies the eight high-level federal functional categories for child support systems on Pages 10 and 15, it is critical to note that federal certification is based on an 80 page document of requirements. The certification requirements contain extensive references to automated case processing which was/is a fundamental goal of the federal automated system initiatives. Examples of the certification requirements include:

Objective D-5 b	"Whenever possible, the system must automatically initiate the next step in case processing without being prompted by the caseworker."
Objective D-5 b 12	The system must "Take any other actions which the system can initiate automatically."
Objective E-1 a	"The system must automatically: 1. Monitor and identify cases in which there is a failure to comply with the support obligation, and 2. Initiate appropriate enforcement action.

The certification guide and questionnaire contains literally dozens of similar requirements for high levels of automation. So while the audit report is correct that, at the time, no systems contained such features, in fact such systems were under development around the country as specified by federal requirements. The systems in Los Angeles County and Massachusetts for example, contain automated case processing similar to that of the KEIKI system.

Finally, CSEA offers that upon the removal of the imaging requirement as requested by the federal government, the plan for Hawaii's automated system project was approved at the federal level. Subsequently, two companies bid the requirements as specified and were willing to go under contract to provide the system. Obviously, neither the federal authorities nor the bidders believed the scope so excessive that federal monies were not approved or that bidders were unwilling to accept the assignment. We suggest, therefore, that the report give more credence to the fact that the original development vendor failed to perform to the terms of its contract.

3. Page 16: Although the report concludes that "*adjustments to project scope were inadequate*", CSEA notes that the imaging requirements were removed and the timelines lengthened as was specified and requested by the federal government. No

deliverables were predicated on imaging and literally no time or effort was expended on this topic. As indicated in Item 2, such efforts constituted an insignificant component of the DSDD. Concerning the VRU, this function was always considered by State and vendor alike to be a function which could be delayed if effort on it impacted the implementation date. There is no evidence that any effort related to VRU or imaging considerations negatively impacted the schedule.

4. Page 20: The report assesses that "*technical staff was not assigned*". CSEA notes that the agency has no direct control over use or assignment of the Department's Data Processing staff. The KEIKI Project is but one of many on the scale of priorities facing departmental DP personnel. For this reason, CSEA has been pursuing the option of its own internal data processing staff similar to the set-up at the Department of Human Services (DHS). We also note that the report correctly states that the data processing staff was available "only on a task-by-task basis". The report should specify, however, that this process was imposed by the departmental DP staff availability and not by CSEA directive.

   CSEA would also like to add information to certain points made on Page 20:

   a. The report states that "*The attorney general's data processing personnel were not involved in the design and in the early stages of development for KEIKI.*" CSEA provided copies of all design documents for AG DP review and DP staff were invited to technical and functional design sessions as well as status meetings. AG DP staff also worked closely and participated in the hardware rollout, configuration of equipment, troubleshooting, and maintenance issues.

   b. The report states that "[AG DP] *were not familiar with the programming language of the KEIKI system. Under these conditions, increasing their involvement during implementation may actually be detrimental and inhibit progress due to time needed to become familiar with the new system. One misstep in programming by the attorney general's data processing staff may give the contractor an excuse to claim that the State directly caused the delays in implementation.*" While it is true that the AG DP staff is unfamiliar with certain software languages utilized at the PC level, the staff is familiar with the primary mainframe programming language of ADABAS Natural. However, the development vendor is contracted to perform all KEIKI programming through development, implementation, and system warranty (one year) until turnover to the State. Under no circumstances are State staff required, encouraged, or allowed to program KEIKI software. Thus, there should be no "misstep" by State staff in programming since this is not an issue. It is also significant to note that the contract provides for technical training for AG DP (and other) State technical resources. This training is not contractually scheduled until after the system is implemented statewide and while the contractor is performing its Warranty Period obligation where it - not the State - maintains the system.

However, CSEA and AG DP have not remained idle in the area of training. The State purchased self-study videotapes which were used by AG DP to begin training on the PC languages new to them. CSEA and AG DP also asked that certain technical training areas be accelerated and staff have attended some training already.

5. Page 21: Concerning the comments about the use of a private contract monitor versus the Information and Communications Systems Division (ICSD): The contract monitor service does not replace or even supersede the use or involvement of ICSD. The contract monitor's duties include assisting in the annual approval and flow of federal funding (which has successfully been accomplished), review and commentary on all contractor deliverables, most of which are non-technical in nature, review of federal certification requirements, daily participation in the functional (i.e. child support enforcement) testing of the system, and many other similar duties. These are not areas where ICSD would or could provide support. Additionally, the use of a third party monitor is strongly recommended and supported by the federal government. Federal funding for the monitoring contractor is included as part of the project. The use of a private firm has in no way reduced ICSD's role in the KEIKI project.

6. Page 21: The report concludes that *"Earlier and regular involvement by ICSD reduces delays."* While the report states that *"The agency called upon the division only on an as-needed basis"*, it does not consider that ICSD themselves limited their involvement due to their own understaffing problems. CSEA regularly and continually met with ICSD over the course of the project using methodologies and frequencies specified by ICSD. All applicable hardware and technical deliverables were provided to them for their review and input. To our knowledge, there have been no significant project delays that have occurred as the result of any situation between ICSD, CSEA, or the project. The report goes on to state that *"The agency has now established twice-a-month meetings with Information and Communications Division staff..."* but fails to note that at several other junctures of the project, regular monthly, bi-weekly, or weekly meetings were conducted dependent on the level of activities involving ICSD. The conclusion that should best be drawn from this issue is not that CSEA did not utilize ICSD sufficiently, but that ICSD - by its own admission - does not have the resources to provide full and/or continual services to projects like KEIKI due to staffing limitations.

7. Page 21: The report mentions, by way of example, the situation of contractor access to the computer system during Pilot Test including the notation that *"the contractor needs unhindered access to the test system"*. CSEA notes that this issue has been resolved. The contractor will have unhindered access only in those situations where production activities are not occurring. Both CSEA and ICSD took the position that the contractors assertion that they need "unhindered" access does not make this a

requirement. ICSD production rules and audit requirements will be followed once "live" cases are processed by KEIKI. The contractor has agreed to this resolution.

8. Page 22: The report concludes that *"Project implementation deliverables were ineffectively used"* and specifically points to the Detailed System Design Document (DSDD) to support this conclusion. However, the audit did not consider the other factors in this situation. The initial submission of the deliverable was incomplete and what was delivered required several months of review and correction. There were some facets, however, that were technically completed and could be performed while the remainder of DSDD was being completed. Additionally, the contractor had added many programmers to its staff in anticipation of beginning development according to a certain schedule. The contractor explicitly told the State that they could not afford to have programmer staff "sitting around doing nothing" and would have to release many if programming did not commence. Also, if programming could not begin as planned, then the federal completion date could not be met and the vendor would not assume liability when it had the staff on hand. For the audit report to assess these factors as a failure of the agency is to not recognize that the vendor missed its contracted date for the DSDD and did not meet its contract requirements for the materials it did deliver. It also does not recognize that the contractor had to utilize its on-site programming staff in some manner or release them when releasing them would ensure that the federal date could not be met. In this case, the contractor has to be allowed to utilize its resources as it deems appropriate even if there is risk involved. CSEA considered that to attempt to prevent this usage was to risk contractual interference and provide the contractor the opportunity to assert that CSEA made contract decisions on the use of staff.

   CSEA does believe that we used the contract deliverables as the project development and control tools as intended in the contract and to the fullest extent possible. If CSEA rejected deliverables because they did not meet contract requirements or if the vendor opted to utilize on-site resources to attempt to expedite development of the system, this should not be construed as ineffective use of deliverables on the State's behalf. Lack of adherence to contract specifications by the vendors, or work not performed correctly the first time, are performance issues with the contractor and not deficiencies by the State.

9. Page 23: The report states that *"The lack of proper documentation made it difficult for the new contractor to accurately estimate the amount of work required to complete the system".* The report goes on to reference defensive positions asserted by the new contractor as if these assertions have any bearing in fact beyond to protect itself against possible contract actions by the State. CSEA does not believe that the contents of a responsive letter from a vendor who has been officially notified of non-performance should be accepted on it's face alone as "factual material" for audit findings. The facts of this situation are as follows:

a. A technical contractor performed work in mid to late 1996 to determine the status of the system and document what needed to be done for completion. It should be noted that the technical contractor who performed the status assessment was retained by the new contractor as the primary technical resource. The new contractor had an unrestrained ability to assess all aspects of the project before signing the contract with the State. The new contractor sent technical, functional, and management teams to review and evaluate work, see the system and all hardware components, interview as many of the technical contractor, State, and contract monitor staff as it wanted for as long as it wanted. They also reported that they compared the status of the Hawaii project against others in its experience including inputing data into a project model to assess the projected completion effort and time. The new contractor had every opportunity to perform due diligence prior to signing its contract. To assert that other entities underestimated the effort is to deny its own responsibilities or assessments prior to signing the contract.

What the new contractor does not mention in their assertions is that the estimates to complete the project were based on specific staffing levels. The new contractor did not provide those levels until over six months into its effort. Documents show that CSEA and the contract monitor raised this issue as early as February, 1997. This project understaffing had a huge impact on the contractor not meetings its dates. Additionally, it wasn't until over four months on the job that the new contractor arranged for a detailed management assessment of the project. One of the recommendations was to increase the technical staffing as had originally been specified by the technical contractor. We also note that it is not insignificant that, last month, the project management was entirely replaced because the contractor themselves recognized that more expertise was required.

10. Page 22: The Audit Report concludes that "*The costs of implementing the project have already exceeded projections because the project was poorly planned and monitored.*" The report does not specify "who" was responsible for this "poor planning" but CSEA wants to make clear its position. The federal government approved the State of Hawaii plan and allocated funding for the effort. Two bidders then took the project requirements and submitted proposals for accomplishing them. By contract, the development vendor is/was responsible for finalizing plans, managing the project, and delivering the requirements. This was not accomplished, leading to the final result of the termination of the developer for contractual breach and non-performance. This was the only real option available to the State because, as the State of Hawaii has seen in other projects, it is difficult to "make" a vendor perform when their deliverables are late or insufficient, they are understaffed, or ineffectually managed.

11. Page 28: CSEA appreciates the audit recommendations and we intend to incorporate these considerations into practice. We do note that CSEA is undergoing evaluations of our organizational structure and we are considering options to perhaps integrate the data processing unit internally to the agency. This analysis also considers the impact of the new system on job requirements. While we do not expect that staffing will be reduced, the nature of how the agency performs its work will definitely be changing. And, as we have noted in this letter, we have increased the visibility and participation of ICSD, although that is more a function of the nearness of turnover of the system to CSEA than consciously "not" including them earlier on in the project.

In summary, CSEA wants to emphasize one important factor: a vendor was hired to implement the KEIKI system and failed in its efforts resulting in a termination of the contract. And while certainly CSEA could look back and have performed differently in specific areas, we do not believe that such performance would materially alter the ultimate non-performance of the developer. As the Office of the Auditor is aware, there is a court case pending in which the State sued the developer for material breaches and non-performance. We are confident that this litigation will demonstrate that the State upheld its contract responsibilities and that the lack of management, control, and performance was on the part of the developer.

Please contact me with any questions.

Very truly yours,

Michael L. Meaney
Administrator

MLM:sgl