

**REPORT OF THE
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION**

**SPECIAL REPORT: REVIEW OF THE
ON-LINE AUTOMATED SERVICES
INFORMATION SYSTEM (OASIS) AT THE
DEPARTMENT OF SOCIAL SERVICES**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



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Preface

This special report was produced in response to a request by the co-chairs of the House Appropriations Committee that JLARC staff complete a review of the On-line Automated Services Information System (OASIS) at the Department of Social Services (DSS). Specifically, JLARC was requested to examine the functionality of the system and to determine how well it supports local social services operations. The study request noted the potential need for additional funding for the system, so JLARC staff also examined the funding for OASIS and the need for additional general fund appropriations. The Chairman of JLARC directed the staff to begin the review at the end of December 1999, with completion by the end of January 2000.

Staff found that OASIS provides the basic functionality needed for recording foster care and child protective services case information, and for reporting required case data to the federal government. However, significant problems related to features such as security, management reports, and printing have limited the usefulness of the system. In addition, with the deployment of the child protective services module of OASIS, a number of problems with the usability of the system became apparent. Local staff expressed concerns about the complexity of data entry screens, difficulty in navigating from one screen to another, the lack of adequate selections in data fields with pre-defined data choices, and inadequate space to record notes and comments related to cases. To a large extent, the system does not support the business processes of the local agencies. Staff from both DSS and the local agencies agreed that OASIS is not yet an adequate case management tool.

While the system has significant problems, there has been some progress in addressing the concerns with OASIS. Deployment of new modules such as child day care has been delayed until modifications addressing problems with the current system have been completed. Recognizing the need for local input in the redesign of the system, DSS has created an OASIS steering committee and four "expert panels," composed of local staff. These working groups will help DSS design and test the modifications needed to improve the functionality and usability of OASIS. Given the commitment of resources already made for OASIS and the movement toward a redesign of the system, DSS should continue its development of OASIS with the assistance of the local agencies. However, DSS has not done all that needs to be done to complete the redesign successfully. This report makes recommendations which DSS should consider as it continues to modify and deploy OASIS. Key among these is the need for a comprehensive redesign and development plan.

On behalf of the Commission staff, I would like to express our appreciation for the assistance provided during this review by the staff of the Department of Social Services, and the Henrico and Goochland local social services agencies.



Philip A. Leone
Director

February 1, 2000

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Special Report: Review of the On-line Automated Services Information System at the Department of Social Services

The On-line Automated Services Information System (OASIS) is used by the Department of Social Services (DSS) to automate processes and information associated with child welfare programs. These programs, which include adoption, foster care, and child protective services (CPS), are administered by the 122 local social services agencies in Virginia. Consequently, local social service workers are the primary users of OASIS. DSS also plans to use OASIS for automation of child day care, adult services, adult protective services, and generic services (prevention, support, independent adoption, intake and emergency services, etc.).

As a result of concerns raised recently about the system by local agencies, the co-chairmen of the House Appropriations Committee requested that the Joint Legislative Audit and Review Commission (JLARC) complete a special review of OASIS (Appendix A). The Chairman of JLARC authorized the staff to begin the review, with completion by the end of January 2000. Consistent with the request for the study, this review addresses four major issue areas: (1) functionality of the system to support child welfare programs in local social services agencies, (2) usability of the system, (3) the development, testing, and deployment of the system by DSS, and (4) funding for OASIS. To complete the review, JLARC staff conducted interviews with DSS central office and regional staff, visited local social services agencies and interviewed other local staff by phone, and reviewed OASIS planning, financial, and other data.

BACKGROUND

OASIS development began in the summer of 1997, with the transfer of the system from the State of Oklahoma. DSS decided to use an existing system after a two-year-long procurement of a new system for Virginia was canceled. In order to meet the federal deadline for adoption and foster care reporting on October 1, 1997, DSS had to implement a new system in a very short time. The Oklahoma system was viewed by DSS as the best available alternative. Computer hardware needed to run the system was purchased, and OASIS was deployed in local agencies by the federal deadline. DSS continues to deploy updates of OASIS in local agencies to address recognized

problems with the system. Some planned enhancements are currently on hold while DSS addresses concerns raised by local agencies.

History of OASIS Development and Implementation

In 1993, Congress passed legislation which provided an incentive through enhanced matching funds for states to create state automated child welfare systems, referred to as SACWIS. In Virginia, implementation of SACWIS was accomplished with the On-line Automated Services Information System (OASIS). DSS initially automated the adoption and foster care programs with OASIS, and subsequently added child protective services processing and information to the system. DSS has also developed a substantial portion of the child day care and adult services components of OASIS, and that is the next major component of the system to be deployed.

In 1994, DSS decided to pursue the development of SACWIS in an effort to achieve the above mentioned goals and to meet the federal requirements for an adoption and foster care analysis and reporting system (AFCARS). The decision to use a SACWIS system for this program was not mandatory, but enhanced funding under Title IV-E of the Social Security Act was available at a 75 percent matching rate if this program were automated under a SACWIS package instead of separately. However, federal guidelines only provided for the enhanced rate of funding for project spending approved and allocated before October 1, 1996. This deadline was later extended to October 1, 1997. Any other type of effort to meet the AFCARS reporting requirement did not receive enhanced federal funding.

In 1996, DSS issued a request for proposal (RFP) for bids on the development of SACWIS software for Virginia. DSS also submitted to the federal Department of Health and Human Services (HHS) a "preliminary implementation" advanced planning document (APD), and received tentative approval from HHS to proceed with the RFP process. Two vendors responded to the RFP, but negotiations progressed poorly through the spring of 1997. One vendor proposed a system found to be inadequate and the other vendor's price was more than twice available appropriations. In June 1997, the RFP for the development of SACWIS software for Virginia was canceled on the advice of the Department of General Services and the Department of Information Technology.

While negotiating with the vendors in the spring of 1997, DSS staff also explored as a contingency the option of transferring a SACWIS package from another state to Virginia. Staff tested the SACWIS software from

several states and decided, with input from local agencies, that Oklahoma's KIDS system could meet Virginia's needs. With cancellation of the SACWIS procurement, DSS requested a production copy of Oklahoma's SACWIS system in order to customize it to meet Virginia's needs, and purchased 1,950 computers and printers for the new system. Oklahoma did not charge Virginia for the transfer of this system. Later in June 1997, DSS sent HHS an informal summary of their recent actions regarding the development of a SACWIS program in Virginia. The Oklahoma system was modified and implemented in Virginia as OASIS.

Despite the informal update provided to HHS in June 1997, DSS did not submit an official APD update to HHS to obtain approval for the department's acquisition and modification of the Oklahoma system for use in Virginia. The failure to submit an APD update is the reason provided by HHS for subsequently denying DSS' requests to approve Title IV-E payments for the hardware that was purchased for OASIS. HHS contends that federal regulations require prior approval for spending on the OASIS project to qualify for Title IV-E funding. As a result, DSS used a combination of Social Services Block Grant and State general funds for the funding of OASIS prior to May 28, 1998.

OASIS (adoption and foster care only) was deployed in local agencies by October 1997 in order to meet the federal AFCARS reporting deadline. Since October of 1997, DSS has continued to modify the system and to add new functionality. The most important modification to the system since its initial deployment was the addition of child protective services cases in July 1999. The planned additions of child day care case management, adult services, adult protective services, and generic services have been delayed while DSS addresses problems with the foster care, adoption, and child protective services portions of OASIS.

Prior JLARC Review of OASIS

JLARC staff completed a prior review of OASIS in January 1998 as part of an overall assessment of automation initiatives in the Department of Social Services. At the time of that study, DSS was just beginning to implement the system statewide with the installation of hardware and software, and the conversion of adoption and foster care cases from the legacy system (VACIS). In the 1998 study, JLARC staff found that:

- DSS had not completed appropriate testing of OASIS prior to deployment;

- DSS staffing for development and testing was inadequate;
- communication between the DSS central office staff and the local social services agencies was inadequate; and
- DSS had failed to obtain the appropriate federal approval for the transfer of the Oklahoma system, resulting in the loss of \$6.75 million (75 percent of \$9 million) in enhanced federal funding.

These findings pointed to the potential for problems and delays in developing and implementing a system for services programs that would meet the needs of local agencies. JLARC staff concluded in the 1998 study that, "[DSS] management must address the needs and requirements of the system's users and properly staff the project to ensure that system problems are addressed in a timely and efficient manner."

JLARC staff also assessed the department's child day care automation efforts. At the time of the 1998 study, day care automation was still in the early planning stage. JLARC staff concluded that day care automation was needed, particularly in light of the substantial growth expected for child day care assistance in coming years. In addition, JLARC staff recommended that local staff be actively involved in the planning of a day care automation system and that DSS allow for flexibility with respect to payment processing at the local level.

STUDY FINDINGS

While DSS met the federal deadline for AFCARS reporting, implementation of OASIS in a hurried fashion with little planning and inadequate participation by local social services agencies has resulted in considerable frustration and dissatisfaction with the system by its users. The current review of the OASIS system found that problems identified in 1998 have not been adequately addressed by DSS over the past two years. For example, DSS did not implement a process to identify local user requirements as recommended by JLARC staff in 1998, and continues to operate with insufficient staffing levels to support the OASIS development effort. DSS has yet to document the business process it is attempting to support with OASIS, and continues to release new versions of the software without proper testing. It is not clear that its current efforts to address problems will be entirely successful.

Functionality and Usability

The OASIS system was designed to automate several functions related to child welfare programs, including mandated federal reporting, case management, and statistical and management reporting. JLARC staff findings related to the functionality and usability of the system are discussed below.

Does OASIS ensure that federal AFCARS reporting requirements are met?

The OASIS system provides the necessary functionality to comply with federal AFCARS reporting requirements, but does not provide adequate supervisory and management reports which local agencies can use to monitor their own compliance. Currently, the federal requirement for reporting consists of 66 foster care and 37 adoption data fields from the OASIS database. The data, which must be reported on an individual client basis, includes client demographics, needed services, level of care, removal from home and placement information, and other data. The required data elements are identified in OASIS data entry screens with a red background, so local workers can see the required fields as they enter data for cases.

The lack of supervisory reports on AFCARS compliance is especially problematic with regard to errors related to the timeliness of recording changes in status (such as when a child is placed in foster care). With appropriate compliance reports from OASIS, local supervisors could monitor the timeliness of entry in the system to avoid these errors. DSS has such a report in development, but it is not available to local agencies at this time.

AFCARS reports are required every six months, so four reports have been submitted to the federal government to date. All four were found in substantial compliance, but some data elements had errors in excess of the 10 percent limit. These errors resulted in combined penalties of \$660,763. The State has not actually paid any of these penalties because they are still on appeal. Should the State ultimately lose its appeals, the penalties will have to be paid. Currently, local agencies are not assessed any share of the penalties.

However, local agencies should assume some responsibility for errors in AFCARS reporting. Some local workers enter data in required fields as "undetermined" or enter data that is known to be erroneous in order to advance to subsequent data entry screens. Because of the difficulty in navigating back to the screens with such incomplete or incorrect data, these

fields may not be corrected. While local workers may intend to correct such data, the press of workload and the complexity of OASIS may lead to workers' failure to make corrections in a timely manner. While some redesign of OASIS may facilitate easier data entry, the local agencies also need to ensure that workers are more diligent in entering correct data on a timely basis. To that end, once OASIS data entry issues have been addressed by DSS, the State may want to consider passing federally imposed funding sanctions on to the local agencies generating the errors.

Does OASIS provide necessary functionality for the administration of the adoption, foster care, and child protective services programs by local agencies? What specific concerns about the functionality of OASIS have been raised by local social services agencies?

The basic core of the system appears to provide the functionality needed for documenting foster care and child protective services cases. It makes possible for the first time statewide reports on Virginia's adoption, foster care, and protective services programs. In addition, because the system is available statewide, information on cases can be shared by local agencies when necessary. However, significant additions and modifications are needed. OASIS as currently implemented does not reflect the business process in Virginia's local social services agencies. One local worker described this basic problem with OASIS: "Currently, we just feed the system, instead of the system helping us to do our jobs."

Concerns raised about OASIS by the local social services agencies relate to both the functionality and usability of the system. Several general areas of concern about the functionality of the system have been identified by local agency staff: system security, purging of records in compliance with law and policy, supervisory and management reporting, printing of case documentation, and the adequacy of data fields to support case documentation.

System Security. The problems with system security relate to access to child protective services data by local agency workers. OASIS was designed to require as many as seven supervisory approvals for certain steps in the intake, investigation, and approval of CPS cases. In order to proceed to the next step (and enter data in OASIS), someone with the security clearance of a supervisor would have to approve the case record at each of the seven steps. Since most local agencies do not actually require supervisory approval for all points in the process, the OASIS requirement has posed a problem for timely completion of case documentation. This problem has been addressed in a recent release of the software.

To work around the problem, some localities assign the security level for supervisors to all CPS workers. This permits workers to enter data for cases without intermediate supervisory approval (workers approve each step themselves). However, it also permits workers to approve their own cases at closure and other significant steps that should be approved only by supervisors. Another security problem identified by local agencies relates to access to cases in other localities. Currently, supervisors in one local office can change the security level of workers in other localities. This raises concerns about the ability of local agencies to maintain the confidentiality and integrity of the CPS records. DSS has begun to address these security issues and expects to resolve them in the next release of the OASIS software.

Purging of Records. Under current State law and the regulations of the Board of Social Services, child protective services records are to be purged after specified time periods. For example, §63.1-248.5:1 of the *Code of Virginia* requires that unfounded cases be purged after one year. Local agencies typically notify persons accused in unfounded cases that the record will be purged after one year. In fact, however, purging of cases is not supported in OASIS, and cases are not purged as required by law. Cases are also not purged as required by Board of Social Services regulations relating to founded cases. Local workers expressed concern that such records remain available for examination in OASIS, especially given the problems with security for the system. DSS expects to address this problem with a maintenance release of OASIS by July of 2000.

Management and Supervisory Reporting. The current OASIS system produces some management reports for use by local agencies. The DSS central office can also use the system to produce useful statistical reports. However, local agencies report that many needed supervisory and management reports are still not available. As mentioned earlier in this report, for example, management reports on AFCARS errors are not available to local agencies. DSS staff confirmed that the development of management reports has not been a priority for enhancements to the system. In addition, local agencies stated that reports previously available in legacy systems are no longer available in OASIS.

Printing. Printing from OASIS also remains problematic. Initially, local staff printed individual screens from OASIS to document their work. This resulted in voluminous paper documentation of case records. Subsequently, DSS improved the printing capabilities of OASIS, but additional problems remain. One major problem now seen by local agencies is the size of printed reports. OASIS prints all the fields associated with a

particular report, even if those fields are blank in the case record. Thus, a report that has four text fields of 2,000 characters each, prints a blank page if all the fields are blank. JLARC staff saw one case record in which five pages of actual case data in narrative form took more than 56 pages to print. The laser printers used by local agencies for OASIS are slow, so these large reports can take some time to print. Local staff also noted that reports with many blank fields are of limited usefulness for court documentation, and can raise questions about whether the case record is complete.

Adequacy of Data Fields. Problems with the adequacy of data entry fields identified by local agencies relate to choices in "pick lists" and the size of text fields used for case narratives. In order to make the system easier to use and to provide for consistency in the data, OASIS data entry screens contain a number of pick lists, which require data to be entered by selection of one or more choices from a pre-determined lists of acceptable responses. Local staff report that the choices available on the pick lists often do not contain those needed to accurately document cases. If the field is a mandatory data element, local workers report that they often must select an inaccurate choice in order to continue to enter data for the case.

Local agency staff also reported that text fields used to enter case narratives are too small for proper case documentation. Such fields are currently limited to 2,000 characters. DSS has attempted to address this concern by placing multiple text fields on a screen that requires more narrative, but local workers have found that this has resulted in many blank fields being printed in reports, as noted above.

Does the design of OASIS ensure ease of use by local social services staff? What specific concerns about usability have been raised by the local agencies?

The design of OASIS does not ensure ease of use by local social services staff. Local workers have expressed concern about the number of screens required to input necessary data for each foster care or child protective services case. One example of the complexity of data entry that may be unnecessary is case intake for child protective services complaints. According to local staff, most child abuse and neglect complaints are received by telephone. The CPS worker receiving the call must collect relevant information to determine if a case should be opened and an investigation begun. Currently, intake information is entered on at least four different screens in OASIS, making on-line telephone interviews of complainants difficult at best. Most agencies continue to use printed intake forms for

collection of information, and then key the information to OASIS at a later time. Local staff also expressed concern about the large number of optional fields and screens which add to the complexity of the system.

In addition, navigation from one screen to the next is controlled by primary and secondary menu bars, each consisting of several buttons. The menu contents of the secondary bars change based on the selection in the primary menu, so navigation to a particular screen is difficult. Local staff expressed considerable frustration with the number and placement of these menu bars. In contrast, the automated day care component of OASIS currently under development uses a series of tabs for navigation. The tabs remain visible in each data entry screen, thereby eliminating the confusion associated with multiple menu bars. A similar redesign of the existing OASIS components would appear to address some of the system usability concerns raised by local staff.

What has been the impact of the problems with OASIS on local social services agencies?

One of the primary impacts of the problems with OASIS is the addition of significant time and effort in the processing and documentation of adoption, foster care, and child protective services cases. In addition to the normal work process, which takes longer with OASIS, local workers have to devote a significant amount of time to system support, such as "work arounds," testing of system fixes, and dealing with technical problems in the software.

For many workers, the use of OASIS results in a duplication of effort. Local case workers are creating and retaining both hard copy and OASIS case records. Local staff reported using hard copy case narratives in court proceedings, for example, because OASIS reports are not useful. The existence of multiple records could cause some confusion about what constitutes the official case record. Local workers had expected the system to ease the work process associated with documenting cases and producing reports. Instead, the use of OASIS has increased the complexity and work associated with basic tasks.

An additional impact is the loss of confidence in the system by local staff because they feel it necessary to enter inaccurate case data in some mandatory fields in order to move from one screen to another. As discussed earlier, some local staff reported that data fields are inadequate and the system does not properly support the actual business process. Several local

workers said that they are not confident that data in OASIS case records is accurate.

Development, Testing, and Deployment

The process used by DSS to deploy OASIS has been a significant contributor to the difficulties experienced with the system. Specifically, DSS chose to deploy an existing system, with little modification, and without systematic identification of user requirements. In addition, there has been inadequate testing of modifications and enhancements to the system, and no piloting of OASIS in the local agencies. Training of local workers was not used effectively to mitigate design shortcomings associated with the transfer of the system from another state. Training and other continuing support for the system remains problematic.

Have local social services agencies been adequately consulted with regard to the development and deployment of OASIS?

Local social services agencies were not adequately consulted with regard to the design of OASIS. The OASIS system was designed and implemented initially by the State of Oklahoma for use in its centralized, state-administered CPS office. After the Virginia procurement for a child welfare system was cancelled, DSS transferred the Oklahoma system to Virginia for use by the local agencies. In order to meet the October 1, 1997, deadline for federal AFCARS reporting, DSS deployed the Oklahoma system with minimal modifications. The failure of DSS to fully reflect the differences in the work processes between Oklahoma's state-administered system and the locally-administered system in Virginia, due to a lack of resources, appears to explain some of the difficulty experienced with the system.

While the local agencies did assist in the development of system requirements for the child welfare system that would have been developed had the initial procurement been successful, they were not involved in a continuing and systematic way in the identification of the modifications necessary to the Oklahoma system. As a result, both local staff and DSS central office staff agreed that the current system does not adequately support case management and reporting needs of the local agencies. Moreover, because implementation of the system was hurried to meet federal reporting deadlines, local agencies never had an opportunity to prepare staff for the necessary shift in work practices and routines related to automation.

Since the system has gone into production, communication between the central office and local agencies has remained weak. For example, local agency staff (and DSS' own regional staff) expressed concern about not being informed of on-going problems with the system, changes implemented by DSS, and the planning for enhancements. Local workers reported spending considerable time trying to work around problems that had already been fixed but about which they were not informed. While local and regional staff reported that communication has improved in recent months, these staff said that the future success of OASIS will be dependent on the ability of the central office to maintain a long-term, meaningful dialog with the field offices.

What steps have been taken by DSS to address the concerns about OASIS raised by local social services agencies?

The department has responded to the concerns raised by local agencies by temporarily suspending development of enhancements to OASIS such as child day care case management, creating several advisory groups to assist in the definition of user requirements for the existing system, and refocusing development efforts on modifications which address identified problems. DSS also appears to have developed better communication with the local agencies. While these are important steps in addressing the known problems with the system, the department needs to do more planning for how the remaining modifications to the system will be implemented. In addition, DSS needs to implement a more rigorous testing program which includes piloting of major releases in the local agencies.

Enhancements to OASIS Delayed. As a first step to address problems with the system, DSS has delayed deployment of the child day care, adult, adult protective, and generic services portions of OASIS until modifications to the foster care and child protective services systems are complete. The purpose of the delay is to ensure that available technical and program staff at DSS are focused on addressing existing problems with OASIS. Currently, the department expects to implement the child day care case management and adult services portions of OASIS by the summer or fall of 2000.

Steering Committee and Expert Panels Created. To ensure that local agencies participate fully in the development of the remaining modifications and enhancements to OASIS, DSS has created a steering committee, consisting of managers from the local agencies. In addition, "expert panels" consisting of local agency workers have been created to specify the detailed requirements for the modifications. The expert panels are also to assist DSS

in testing the modifications prior to re-deployment. These groups have been organized but have yet to determine the nature of the modifications necessary. These groups should be able to assist DSS in defining the user requirements for the system.

Other Actions. DSS also hired a consultant to help in the development of a communication plan, which outlined various reporting relationships among the central office staff and local agencies. To better define the concerns of local agencies, the department also had one central office staff person visit local and regional offices statewide. These visits involved hands-on examination of the problems local agencies were experiencing and resulted in valuable documentation of many of the system modifications and enhancements that will be needed.

Does DSS complete adequate testing of OASIS maintenance releases and system enhancements prior to deployment in local agencies?

DSS does not complete adequate testing of the OASIS maintenance releases prior to deployment in the local offices. Inadequate staffing levels in DSS have limited its ability to perform the needed testing at the appropriate level. The 1998 JLARC review of OASIS cited this lack of adequate staffing as a problem that would limit successful deployment of the system. While the department has attempted to hire additional staff, it has been unable to fill the part-time positions. Although it recognizes that central office testing is inadequate, DSS has not been diligent in seeking alternative methods for testing, such as piloting new releases in selected local offices.

It now seems unlikely that DSS will be able to hire the functional staff (staff with knowledge in program areas such as foster care or child protective services) needed for OASIS development and testing. Therefore, it needs to refocus its testing efforts. First, DSS does not make use of modern tools for automating the testing process. It is considering the use of these tools, and should expedite the acquisition and use of automated testing applications. DSS needs to develop a rigorous testing protocol and use it consistently. These steps could help to address local complaints that the fix to one problem often result in other problems with the system.

In addition, DSS has not developed an appropriate plan for piloting new releases in selected local agencies prior to making the revisions of OASIS available statewide. Currently, new releases of the software are sent to the Henrico and Chesterfield local agencies for testing. These two local agencies are given only four or five days to test modifications prior to the new release

being distributed statewide. For the most recent release, the software was tested on only one PC in Henrico (and found to still have problems printing). This type of limited testing in local agencies is wholly inadequate for a system as complex as OASIS.

Given the lack of staff in the central office for full testing of new releases, DSS should reconsider its decision not to pilot OASIS in local agencies. Pilot agencies should be given adequate time to install and use new releases in their production environments. A formal process for reporting problems should be established. While testing OASIS in pilot agencies may slow the distribution of maintenance releases, it would likely reduce the number and seriousness of subsequent problems found when new versions are placed in production statewide.

Do local agency staff receive adequate continuing support for OASIS?

Two forms of continuing support would appear to be most useful for local workers using OASIS: help desk support and periodic refresher training. Currently, local staff report that the help desk at DSS is useful but could be improved. Training, on the other hand, has not been effective.

DSS Help Desk. Local workers reported making extensive use of the DSS help desk for OASIS. In dealing with technical problems, the help desk was reported to provide generally good assistance. Local agencies did express some dissatisfaction with the response time for the help desk. For example, local workers reported that they often have to leave voice mail when calling the help desk, and that a delayed response means they are unable to promptly and accurately enter case information into the system. Recent help desk statistics show some improvement in call handling as a result of reduced volume. The average age of the calls in the backlog is less than three days.

The local agencies also reported that the help desk needs to do more than answer technical questions. In order for the help desk to be a more useful resource for local agencies, help desk staff need to have a greater understanding of the business process of the local agencies. The help desk needs to be able to address questions related to the use of the system in support of the daily work in the local agencies.

Training. Local staff had mixed opinions about the initial OASIS training provided by DSS. While some staff found the training useful, others complained that trainers did not have sufficient understanding of foster care

or child protective services to effectively address questions about the use of the system. Local workers and DSS staff both reported that the department has not provided adequate training on the new releases of the software. This type of refresher training will be essential if major changes are made in the design of the CPS portion of the system. It is not clear how DSS will provide this type of training for local workers. DSS needs to supplement worker training with additional on-line or printed system documentation or user manuals.

Funding and Budgeting

The total anticipated cost of the adoption, foster care, and child protective services portion of OASIS is about \$14.9 million, of which more than \$12.5 million has already been expended. The addition of the child day care case management system will increase the total cost for OASIS to \$17.6 million. DSS has funding for this entire amount, either from federal funds or State appropriations. The department does not expect to request any additional State general funds.

How much State and federal money has already been expended on the OASIS system?

To date, the Commonwealth has expended approximately \$12.5 million on the development, deployment, and implementation of OASIS (Table 1). Of that amount, the largest single expenditure has been \$4,868,369 for the purchase and installation of PCs and printers for local service workers. In addition, the department purchased a Sun E10000 server. The Sun server is used for a number of the department's automated systems, including OASIS and ADAPT. Based upon system usage, DSS allocated the cost associated with the Sun server to the various automation initiatives within DSS. The OASIS share of the Sun server was \$763,442.

SACWIS is the federal funding initiative for the automation of child welfare programs. OASIS is Virginia's implementation of SACWIS. While SACWIS has funded a portion of Virginia's OASIS effort, the bulk of the expenditures have been funded through a combination of State general funds and the Social Services Block Grant. In order to receive federal funding for SACWIS projects, the Department of Health and Human Services (HHS) requires states to submit advanced planning documents (APDs) for approval. Without prior approval of an APD from HHS, federal funding for child welfare systems development can be denied.

Table 1
History of SACWIS/OASIS Expenditures through January 2000

<u>Expenditures</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>Total</u>
Technical/Management Services	\$113,121	\$4,685	\$40,733	\$273,994	\$1,656,480	\$1,123,448	\$3,212,461
Travel/Meals	179		5,989	15,573	25,044	4,931	51,716
Computer Equipment		95	21,992	4,868,369	67,824		4,958,280
Operational Expenses ¹		113	16,995	27,823	91,008	2,981	138,920
Software Costs			2,335	2,745,160	906	1,122	2,749,523
Sun Server				763,442			763,442
Wage Employees				8,656	146,647	64,162	219,465
Allocated Salaries ²	94,125	42,341	50,161	53,210	85,362	85,000	410,199
Total	\$207,425	\$47,234	\$138,205	\$8,756,266	\$2,073,270	\$1,281,644	\$12,504,006

¹ Operational expenses = Telecommunications Services + Computer Operating + Other

² Estimated amount for FY 2000.

Source: JLARC analysis of the Department of Social Services SAWIS/OASIS expenditure data.

Prior to issuing an RFP for the development of a SACWIS system in Virginia, DSS had submitted and received tentative approval from HHS to proceed with the RFP process. In the spring of 1997, DSS canceled its RFP and changed direction in favor of using Oklahoma's KIDS system. In June 1997, DSS informally informed HHS of its recent actions and of its decision to transfer and modify the Oklahoma system for use in Virginia. As noted earlier in this report, DSS did not submit an official APD update to HHS. Therefore, HHS denied DSS requests for Title IV-E funds for the hardware and other related expenditures for OASIS. Since DSS was denied the Title IV-E funding, all expenditures for OASIS made prior to May 29, 1998, were funded through a combination of Social Services Block Grant and State General Fund dollars. In its recently approved APD update to HHS, the department reports spending \$9,025,680 for SACWIS/OASIS through May 28, 1998. Of that amount, \$3,249,245 State general fund dollars were expended.

All costs incurred on or after May 29, 1998, are shared with the federal government at a 50 percent match rate. The costs associated with OASIS are allocated based on the instructions provided in the Administration for Children and Families' (ACF) conditional approval letter dated May 29, 1998. As reported in the SACWIS Implementation Advanced Planning Document Update for OASIS, DSS estimated that the implementation costs after May 29, 1998, for OASIS would be \$5,898,975. DSS estimated that the State's share of these OASIS implementation expenditures would be \$2,949,487. As shown in Table 1, almost \$3.3 million has been expended on OASIS since July 1, 1998.

Although development of the child day care case management portion of OASIS is on hold at this time, the department still plans to bring this part of OASIS on-line by the summer or fall of 2000. To date, the department has expended \$770,955 for the development of child day care automation (Table 2). The funding source for the child day care portion of OASIS is the Child Care and Development Fund (CCDF). This block grant from the federal government does not require federal approval of an advanced planning document. As a result, there are very few restrictions on the funding, and strict timelines are not imposed. Since these funds are less restricted, the department has the flexibility to pause or suspend the project without jeopardizing current and future revenue.

The department has also delayed implementation of the adult or generic services portion of OASIS. In contrast to the other parts of the system, the generic services component of OASIS has no federal funding stream. However, the department believes that the screens developed for the

Table 2
Child Day Care Expenditures for FY 1999 and 2000

<u>Expenditure Category</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>Total</u>
Technical/Management Services	\$209,443	\$324,397	\$533,840
Travel/Meals	3,261	1,072	4,333
Computer Equipment	18,660	72,884	91,544
Operational Expenses	2,866	16,802	19,668
Software Costs	0	121,570	121,570
Total	\$234,230	\$536,726	\$770,955

Source: Virginia Department of Social Services.

child day care case management component of OASIS can also be used for adult services. DSS has developed the screens for child day care generically, thereby minimizing the need for extensive screen modification for the adult services screens. As these two components will be developed in tandem, the department reports that costs for the adult services components should be minimal. DSS staff also stated that any expenditure required for the development of the adult services component can be absorbed by funds in the department's existing budget.

In contrast to federal AFCARS reporting, DSS can meet federal reporting requirements for child day care assistance by compiling data from locally-prepared manual reports. Currently, case-specific data is reported to the federal government using a sampling methodology. Similarly, adult or generic services do not have stringent mandatory federal reporting requirements. Therefore, the delay in the child day care portion of OASIS should not result in the department incurring any federal penalties associated with child day care or adult services reporting.

What additional expenditures are planned for completion of OASIS?

The SACWIS Implementation APD for OASIS submitted to the federal government estimated a total lifecycle cost of \$14,924,655 for OASIS. As discussed above, \$12.5 million of that amount has already been expended. According to the OASIS APD budget, approximately \$2.5 remains to be spent. The APD estimated \$2,076,650 will be required during FY 2001 through FY 2003 for production support, not additional development. The production costs for fiscal years 2001 through 2003 will be split between federal funds

and State general and SSBG funds. At present, the OASIS project has not exceeded its budget. However, remaining development/implementation costs are unknown and will largely depend upon the magnitude of the department's redesign efforts. DSS estimated that redesign and other "fixes" might cost an additional \$500,000. The department does not anticipate requesting any additional general funds for the completion of the project.

The total two-year budget for child day care automation is \$2.7 million, of which \$770,000 has already been expended. The largest single budget item is \$2 million for contract training. Since implementation of the child day care component has been delayed, the training money has yet to be expended. Given that training has been identified as a problem for OASIS by local agencies, the department's allocation of significant resources for training in the child day care system appears reasonable. The department appears confident that sufficient funding is available through the CCDF for completion of the child day care component of OASIS. Once again, general funds should not be required for the child day care case management component of OASIS.

As noted earlier, the adult services component of OASIS does not have a federal funding source. However, DSS reports that the lack of a specific federal funding stream should not hamper the development of the adult services component.

Will any additional State general fund appropriations be needed for completion of OASIS?

At this time, the Department of Social Services reports that it does not anticipate requesting any additional State general funds for the completion of OASIS.

Conclusions and Recommendations

Based on this review of OASIS, it appears that many of the concerns raised by local agencies in recent months are valid, and that significant modification of the system is warranted. The department has already begun the process of modifying the system to better meet the needs of local agencies, but needs to revise its development and deployment process to complete the redesign successfully.

Should DSS continue its development and deployment of OASIS?

DSS should continue development and deployment of OASIS, because the system provides the basic foundation for automation of service programs in Virginia's local social services agencies, and it can likely be modified further to address the problems associated with functionality and usability. In order for the redesign and enhancements to be deployed successfully, however, DSS should slow the pace of the process, do the necessary planning, and complete more comprehensive testing.

Should the child day care and adult protective services components of OASIS be developed and deployed?

The child day care case management and adult protective services portions of OASIS should be completed and deployed. However, the department should complete the redesign and implementation of the current system prior to deployment of child day care case management. DSS should also complete a formal pilot test of the child day care case management and adult protective services components prior to statewide distribution.

Recommendation (1). The Virginia Department of Social Services should develop a more systematic process for documenting and responding to problems with OASIS. The department should develop a comprehensive plan for managing the redesign process, including how it will coordinate the work of the local steering committee and expert panels, how it will test and pilot new releases, how it will train local staff on new functionality or enhancements, and how it will provide continuing support to local agencies.

Recommendation (2). The Virginia Department of Social Services should implement a comprehensive testing protocol for all releases of OASIS. A revised testing program should make use of automated testing tools and formal pilot testing in selected local social services agencies. Testing and piloting should be completed prior to distribution of any additional releases to local agencies statewide.

Appendix A

COMMONWEALTH OF VIRGINIA
HOUSE OF DELEGATES
RICHMOND

DEC 22 1999

APPROPRIATIONS COMMITTEE
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December 21, 1999

The Honorable Richard J. Holland
Chairman, Joint Legislative Audit & Review Commission
P.O. Box 285
Windsor, Virginia 23487

Dear Richard:

We recently received an indication that the Department of Social Services is experiencing problems with one of its major information systems projects, the OASIS system. As you well know, the General Assembly has kept a close eye on systems development efforts within the agency since problems with the ADAPT eligibility processing system came to light some time ago.

Our understanding is that the Commonwealth has spent a considerable amount on OASIS, the system which was developed to manage and report foster care and adoption cases. However, there is some feeling at the local level that the system does not adequately support daily DSS transactions.

Since we may be asked to commit additional funds in the 2000-2002 budget for modifications to OASIS and for other DSS systems development efforts, it would be very helpful to have an evaluation of OASIS before we have to consider those requests.

As you well know, JLARC staff are familiar with DSS systems and currently monitor the Local Information Technology Planning Committee meetings that DSS holds each quarter. Therefore, we respectfully request that JLARC staff do an abbreviated assessment of the OASIS system and any proposed modifications to determine its functionality and how well it supports local DSS operations. We would be most grateful if this assessment could be done by the end of January.

The Honorable Richard J. Holland
December 21, 1999
Page Two

Thank you in advance for considering this request.

Sincerely,



Vincent F. Callahan, Jr.
Co-Chairman



V. Earl Dickinson
Co-Chairman

Cc: The Honorable Joe T. May
The Honorable Franklin P. Hall
Phil Leone, Director, JLARC

Appendix B Agency Comments



COMMONWEALTH of VIRGINIA DEPARTMENT OF SOCIAL SERVICES

January 31, 2000

Mr. Philip A. Leone, Director
Joint Legislative Audit and Review Commission
Suite 1100, General Assembly Building, Capitol Square
Richmond, Virginia 23219

Dear Mr. Leone:

Thank you for the opportunity to review and comment on the exposure draft of your agency's report, Special Report: Review of the On-Line Automated Service (sic) Information System (OASIS) at the Department of Social Services. We appreciate your willingness to listen to and incorporate points of fact and suggestions about the context within which OASIS was developed and deployed.

The Department of Social Services acknowledges that there have been multiple difficulties with the implementation of OASIS. However, any evaluation of OASIS experience must take into account the following factors:

- The federal mandate for Statewide Automated Child Welfare Systems (SACWIS) placed a comprehensive case management tool as the **primary benefit** such a system would provide to states administering child services programs.
- Despite this claim, the universal experience of other states, as well as Virginia, has been that the final product is first and foremost a data gathering tool. In fact, federal reporting and fiscal sanctions are associated only with the data gathering element of a SACWIS system.
- Similarly, the experience in all states has been that dedicated social work staff have been universally unhappy with the added work required to amass the data that the federal government demands as the price for federal funding participation.

The Department of Social Services will continue to improve and enhance OASIS as part of its overall goals to protect children and strengthen families. While there are a number of improvements we can and will make to OASIS, I believe it is important to recognize the positive impact of the Department's efforts thus far. These include:

- Delivery of office automation tools to local department social workers, many of whom never had access to a computer before,
- Implementation of an effective statewide automated communications system between the Department and local departments allowing the rapid dissemination and sharing of information between workers, and

JLARC letter
Page 2

- Implementation of an automated data system infrastructure in local departments of social services that, despite its problems, has enabled the submission of reports to comply with federal AFCARS requirements.

Notwithstanding the above, we recognize the need to continue to improve OASIS in order to make it the case management tool local workers require. As your report notes, we have been working with local departments to address these issues and we remain committed to meeting the challenges identified.

Sincerely,

A handwritten signature in cursive script that reads "Sonia Rivero".

Sonia Rivero
Acting Commissioner

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