



Commonwealth of Massachusetts  
Office of the State Auditor  
Suzanne M. Bump

*Making government work better*

Official Audit Report-Issued November 20, 2012

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## Office of the Jury Commissioner

For the period July 1, 2010 through June 30, 2011



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## **INTRODUCTION AND SUMMARY OF FINDINGS AND RECOMMENDATIONS**

The Office of the Jury Commissioner (OJC) is authorized by Chapter 234A of the Massachusetts General Laws to manage the selection and participation of prospective qualified jurors in servicing the needs of the trial court divisions of the Commonwealth of Massachusetts. The OJC is the judicial branch agency responsible for the random selection of potential jurors and the management and summoning of all trial and grand jurors in the Commonwealth. The OJC directs the daily operation of the statewide “One Day or One Trial” jury system, under which jurors complete their service in one day or, if impaneled, serve on one trial.

The Jury Commissioner, pursuant to Chapter 234A of the General Laws, is responsible for the administration of the jury system for the Commonwealth and serves as the executive head of the OJC. With supervision and guidance of the Jury Management Advisory Committee (JMAC), which is a standing committee of six judges appointed by the Chief Justice of the Supreme Judicial Court (SJC), the Jury Commissioner establishes and implements policies and procedures for the selection and management of jurors in Massachusetts. For fiscal year 2011, the OJC received state appropriations totaling \$2,398,691 to fund its administrative operations, including the five major OJC departments: Operations, Legal, Administration, Data Processing, and Network and Infrastructure Services.

### ***Highlight of Audit Findings***

- The OJC did not implement the recommendations in our previous report (No. 2007-1216-30) that related to improving the purchase of services from a computer consultant company, Verity Consulting Company, Inc. (Verity), which has cost the Commonwealth \$2.1 million for the period February 4, 2004 through June 30, 2011. Although this consultant was selected from the Commonwealth’s preapproved list of vendors to supply computer consulting services, the OJC did not follow the Commonwealth’s recommendation to use a competitive procurement system, define what was being purchased to enable other vendors to provide bids or quotes on the work, identify what specific tasks needed to be completed to justify payment to the consultant, and maintain documentation supporting the contractor’s billings. These costs will likely continue to escalate unless the OJC demands greater accountability from its contracted vendors.
- The OJC resolved our prior audit finding where we recommended that it consider using multiple information sources (e.g., Registry of Motor Vehicles or Department of Revenue data) to compile its annual Master Jury List to increase the number of available jurors. Although, as required by state law, the OJC continues to rely on the Numbered Resident List, it did participate in an Administrative Records List working group mandated by Section

71 of the Fiscal Year 2008 Budget Act. OJC representatives indicated that after participating in the working group, the OJC determined that the Numbered Resident List from the annual Massachusetts Census is the best source to use because its addresses are current and it sufficiently represents the population.

- The OJC resolved our prior report's finding regarding improvements needed in juror utilization. Specifically, the OJC and the JMAC developed "best practices" recommendations, which were implemented by the Chief Justice of the SJC, the Chief Justice of the Administrative Office of the Trial Court (AOTC), and Trial Court Departments, resulting in increased juror efficiency.
- The OJC resolved our prior report's finding regarding necessary internal control improvements by developing and documenting a comprehensive Internal Control Plan that supports its policies, procedures, and business objectives and provides sufficient detail to address the risks internal control requirements specific to all OJC operations.
- The OJC lacked formal procedures documenting the timely deactivation of employees' user accounts upon their departure from the OJC (e.g., retirement, leave). As a result, there is inadequate assurance that only current and properly authorized OJC employees have access to OJC computer applications.

#### ***Recommendations of the State Auditor***

- Since the OJC did not follow our previous recommendations regarding the computer consultant's contact, other oversight agencies should review this situation. Specifically, the SJC, which has oversight of the OJC, and the AOTC, which provides funding for the jury-software project, should meet with OJC officials to develop an action plan on how to proceed. As a starting point, the OJC should determine what services it needs to obtain and what level of skills would be necessary to perform the planned work. Once this is determined, consideration should be given to allocating the resources to provide these services in house or to strengthen contract management functions.
- The OJC should strengthen its controls over access to its computer system, in conjunction with the AOTC, to ensure proper restriction or termination of access when an individual ceases employment or changes positions within the OJC. Moreover, the AOTC should enhance its information technology (IT) policies and procedures regarding password administration to increase IT security.

## OVERVIEW OF AUDITED AGENCY

The Office of the Jury Commissioner (OJC) is authorized by Chapter 234A of the Massachusetts General Laws to manage the selection and participation of prospective qualified jurors in servicing the needs of the trial court divisions of the Commonwealth of Massachusetts. The OJC is the judicial branch agency responsible for the random selection of potential jurors and the management and summoning of all trial and grand jurors in the Commonwealth. The OJC directs the daily operation of the statewide “One Day or One Trial” jury system, under which jurors complete their service in one day or, if impaneled, serve on one trial.

The OJC is responsible for furnishing each of the 66 jury trial courts with a sufficient number of prospective jurors. Additionally, the OJC provides potential juror source lists to the Clerk of the U.S. District Court, First Circuit, for use in the three Massachusetts federal judicial districts. To obtain jurors for the court system, the OJC summonsed 696,934 potential jurors during calendar year 2010. A total of 245,901 jurors served in 2010, and 80,844 potential jurors postponed their service until a future date. In addition, 161,688 potential jurors were disqualified from service for a variety of reasons (e.g., age, medical issues, language barriers, citizenship status). The remaining 208,501 jurors summonsed fell into such categories as summons returned as undeliverable, no response from summons, summons canceled, and absent jurors.

The Jury Commissioner, pursuant to Chapter 234A of the General Laws, is responsible for the administration of the jury system for the Commonwealth and serves as the executive head of the OJC. With supervision and guidance of the Jury Management Advisory Committee (JMAC), which is a standing committee of six judges appointed by the Chief Justice of the Supreme Judicial Court, the Jury Commissioner establishes and implements policies and procedures for the selection and management of jurors in Massachusetts. The Jury Commissioner serves for a five-year term, and the current Commissioner was initially appointed in October 2003. For fiscal year 2011, the OJC received state appropriations totaling \$2,398,691 to fund its administrative operations, including the five major OJC departments: Operations, Legal, Administration, Data Processing, and Network and Infrastructure Services (NIS). Other expenses, relating primarily to postage and a computer consultant, are charged to accounts under the control of the Administrative Office of the Trial Court.

The OJC's NIS Department is responsible for managing all the OJC's technology requirements and provides support services for the 17 file servers, 107 desktop computers, and 13 laptop computers located at the OJC's main office in Boston and the 66 jury pool court locations throughout the Commonwealth. The OJC's mission-critical application, identified as Jury + NextGen (NextGen), was developed by Jury Systems Incorporated (JSI). The NextGen application provides access to comprehensive juror and case management information to jury locations across the Commonwealth of Massachusetts. In addition, the OJC maintains an interactive website that allows jurors to perform all necessary functions and provides jurors with complete information to perform their service. This website allows prospective jurors to confirm or postpone their service, request a hardship transfer or disqualification, complete a demographic survey, update their contact information, and complete and print confidential juror questionnaires.

## **AUDIT SCOPE, OBJECTIVES, AND METHODOLOGY**

In accordance with Chapter 11, Section 12, of the Massachusetts General Laws, we performed a follow-up audit of prior audit results at the Office of the Jury Commissioner (OJC) for the period July 1, 2010 through June 30, 2011. Further, we examined certain Information Technology (IT)-related controls pertaining to logical access security, inventory control over IT-related assets, disaster recovery and business continuity planning for mission-critical applications, and controls in place to protect personal information. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our audit objectives were to (1) assess the adequacy of the OJC's internal controls over the development of the Master Juror List, statistical data analysis, and selection and use of consultants for implementation of the jury management system and (2) follow up on the status of recommendations from our previous audit report (No. 2007-1216-3O), which covered the period July 1, 2005 through October 31, 2007).

To achieve our audit objectives, we conducted interviews with management and staff and reviewed prior audit reports, the Office of the State Comptroller's Massachusetts Management Accounting and Reporting System (MMARS) reports, OJC statistical reports, and the OJC's organizational structure. We also met with officials from the Administrative Office of the Trial Court (AOTC). In addition, we obtained and reviewed copies of statutes, policies and procedures, accounting records, and other source documents. Our assessment of internal controls over financial and management activities at the OJC was based on those interviews, site visits, and document reviews. With respect to the OJC's electronic juror records system, we assessed reliability of data by performing electronic analysis of the source list data, comparing data to published reports from other organizations for comparative purposes, and interviewing agency officials knowledgeable about the data. We determined that the data was sufficiently reliable for the purposes of this report. We also obtained expenditure data from MMARS and presented it for background information purposes; accordingly, we did not assess the reliability of that data.

Based on our review, we determined that, except as reported in the Audit Findings section of this report, for the period July 1, 2010 through June 30, 2011, the OJC maintained adequate internal controls over its development of the Master Juror List, statistical data analysis, and selection and use of consultants for implementation of the jury management system.



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## AUDIT FINDINGS

### 1. PRIOR AUDIT RESULT UNRESOLVED – IMPROVEMENTS NEEDED IN THE PROCUREMENT, MANAGEMENT, AND MONITORING OF THE JURY SYSTEM SOFTWARE CONTRACTOR

The Office of the Jury Commissioner (OJC) did not implement the recommendations from our previous audit report (No. 2007-1216-30) that related to improving the purchase of services from a computer consultant company, Verity Consulting Company, Inc. (Verity), which received \$2.1 million in state funds between February 4, 2004 and June 30, 2011. Verity was initially hired in 2004 to provide project management services during the installation of a new jury software system. However, the scope of the consultant's work changed over time, through a series of annually issued contracts, to include other items such as the development of new software used in conjunction with the main jury system application the consultant was originally hired to oversee. Although this consultant was selected from the Commonwealth's preapproved list of vendors to supply computer consulting services, the OJC did not follow the Commonwealth's recommendation to use a competitive procurement system, define what was being purchased to enable other vendors to provide bids or quotes on the work, identify what specific tasks needed to be completed to justify payment to the consultant, and maintain documentation supporting the contractor's billings. Since the OJC did not implement our prior audit recommendations and since there appears to be no plan to cease using the services of the consulting company, we recommend that the Supreme Judicial Court (SJC), which has statutory oversight of the OJC, and the Administrative Office of the Trial Court (AOTC), which has a financial interest because it pays for these expenses, explore options and develop an action plan to address these concerns.

Our prior audit noted that the OJC needed to improve its performance monitoring of the contractor it used to help implement and provide other services for its jury system software. Specifically, we recommended that the OJC clearly define the services it is seeking, obtain detailed project plans for the contractor's work, update those plans as work progresses, and ensure that billing documents are supported by documentation of what was worked on during the billing period. We also recommended that the OJC solicit either competitive bids or proposals from vendors prescreened by the Operational Services Division (OSD) for the type of work to be performed. Because contract costs had increased from an original amount of \$150,000 in 2004 to a total of \$1.4 million as of June 2007, our prior report strongly recommended that the OJC monitor the contractor's performance. In its response, the OJC

indicated that it disagreed with our recommendation, noting that the role of the contractor in question—who was initially hired to be the project manager—had evolved to include more responsibilities. The OJC also contended that it had sufficiently defined services sought in the scope of each annual contract, detailed project plans, and adequately supported billing documents.

Our follow-up review revealed that little has changed since our prior audit. The OJC continued to use the same OSD prescreened contractor and did not have detailed project plans for the contractor's work, did not obtain competitive proposals from other contractors, and did not strengthen documentation for hours billed, contrary to OSD guidance. We also noted that contractor costs had increased to an accumulated total of \$2.1 million (an average of approximately \$260,000 annually) as of June 30, 2011 and, of even greater concern, that the accumulated costs will continue to increase in the future as the OJC is relying on the contractor in what it appears will be a continually renewing contract. The following bulleted items expand on both OSD guidance and the OJC's corresponding deficiencies.

- Statement of Work and Deliverables Purchased: OSD provides guidance and a suggested Statement of Work document that encourages splitting the services being obtained into “Deliverables or Tasks” and listing the applicable “Description and Metrics of Acceptance” so that a clear understanding is established of what is being purchased and what items are to be completed to support payments made. Contrary to this guidance, the OJC contract with Verity identifies six tasks that are continued from one contract year to another and includes one task not performed by the contractor (verification of the Master Jury List). The contract was written as a “time and materials”<sup>1</sup> contract to provide for up to four consultants paid at an hourly rate of \$95 per consultant. Without clearly describing what the OJC is purchasing and what the contractor must accomplish to qualify for payment, the OJC cannot support payments made to the contractor and cannot clearly demonstrate that it received what it intended to purchase.
- Supporting Documentation for Billings: Our prior audit also recommended that billings be supported by documentation identifying the work performed during the billing period. OSD guidance recommends identifying the deliverable or task, as noted above, and cross-referencing the payment to the deliverable or task received or completed. However, the OJC's monthly billings currently identify only the consultant employees working during the month, the total hours worked, and a general description of the services provided, rather than clearly identifying what payments correspond to specific tasks performed, deliverables received, or consultant hours worked. Although they were not provided for on the billing information, we were given a listing of 60 items that

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<sup>1</sup> A “time and materials” contract provides for payment based on payroll cost and materials used, whereas a “project” contract provides for payment based on the completion of certain tasks and established milestones.

Verity worked on for the period July 1, 2010 through June 30, 2011. Based on the work descriptions, 26 of the issues Verity worked on were classified as “Informational Website” pertaining to the mass.gov website; 25 issues were classified as “Juror Confirmation Website” pertaining to the online juror confirmation component originally developed by Verity; and the remaining nine issues were classified as “Jury + Releases,” which were program updates provided by the main software vendor. Although this additional information provided more detail about the tasks that were performed, we question whether a vendor was necessary to perform all these tasks. Further, based on the lack of specificity in this listing, it was not possible to determine what level of skills (e.g., Senior Software Developer, Entry Level Developer, Quality Assurance Tester) would be necessary to perform these services.

- Soliciting Competitive Bids or Proposals: OSD guidance and our prior audit’s recommendation suggest soliciting competitive bids or proposals for the type of work being performed. However, the OJC, which indicated that it awarded the original contract based on its knowledge of the contractor’s ability, has never solicited competitive bids since the original contract was awarded in 2004. The OJC also indicated that it is pleased with the contractor’s performance and that it would be counterproductive to bring in a new contractor. Nevertheless, without soliciting competitive proposals, the OJC cannot ensure that it receives the best value for the contracted work.
- Type of Contract: Although OSD guidance does provide for the awarding of contracts on a “time and materials” basis, it indicates that this should occur only in instances when a reasonable fixed price cannot be determined. Moreover, OSD recommends that, once sufficient information is available, the “time and materials” portion should convert to a fixed-price project, and quotes should be obtained for that portion of the work. Contrary to OSD guidance, the OJC has issued “time and materials” contracts since 2004 and has neither issued fixed-price contracts nor requested quotes for work from other contractors.
- Transfer of Intellectual Property: OSD guidance states that the contract should provide for the transfer of intellectual property to the Commonwealth. However, the OJC contract contains no such provision, even though the contract provides for the “development and implementation of the Statistics/Reporting software” and “design and development of web-based software used by Jury Pool personnel to gather social security numbers from jurors scheduled to receive payment from OJC.” Additionally, the web-based juror interface system developed by the contractor and implemented in 2007 does not transfer intellectual property ownership rights to the Commonwealth. As a result, the OJC’s reliance on the contractor to provide information technology (IT) services places the agency at risk of not having the ability to perform key functions should the contractor become unavailable because of a lack of resources to fund future contracts. It is apparent that the contractual obligations will continue into the future.

Funding for the computer consultant company has been provided through central accounts under the control of the AOTC, since the OJC did not have sufficient funds available to pay for these expenses from its state-appropriated funds.

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**Recommendation**

Since the OJC did not follow our prior recommendations, we recommend that other oversight agencies review this situation. Specifically, the SJC, which has oversight of the OJC, and the AOTC, which provides funding for this project, should meet with OJC officials to develop an action plan on how to proceed. As a starting point, the OJC should determine what services it needs to obtain and what level of skills would be necessary to perform the planned work. Once this is determined, a number of options may be examined, including using features already present in the main jury system application instead of the consultant-developed software, having the AOTC Information Services Division perform work currently done by the consultant, hiring staff to perform these functions, or continuing the current practice. If the consultant route is determined to be the best choice, we recommend that the OJC consider the following items in selecting a contractor:

- Comply with OSD guidance to improve its controls over contractor procurement.
- Clearly define the services sought, obtain detailed project plans for the contractor's work, update those plans as work progresses, and ensure that documentation detailing the tasks performed supports the charges billed.
- Consider soliciting either competitive bids or proposals from OSD prescreened vendors for the type of work to be performed.
- Ensure that the contract includes provisions for the transfer of intellectual property to the Commonwealth.

**Auditee's Response**

*We are pleased to report that since the conclusion of the audit, the Chief Justice for the Trial Court and the Court Administrator have approved the OJC's critical needs request to hire an IT specialist to assume these responsibilities. The OJC plans to transfer most, and perhaps all, of Verity's duties in-house during the current fiscal year.*

*Further, in response to the auditors' suggestions, the OJC put the FY13 contract for services out to competitive bid in FY12. As recommended in the 2012 Draft Audit report, the OJC used "a competitive procurement system, defining what was being purchased to enable other vendors to provide bids or quotes on the work, [and] identifying what specific tasks need[ed] to be completed to justify payment to the consultant."*

*In consultation with the Administrative Office of the Trial Court, the OJC has requested input from the Trial Court auditors to review the OJC's record-keeping on this project and offer suggestions for improvement.*

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**2. PRIOR AUDIT RESULT RESOLVED – THE OJC EXPLORED METHODS TO INCREASE THE NUMBER OF POTENTIAL JURORS**

Our prior audit recommended that the OJC consider using additional source lists to expand the pool of potential jurors in the creation of the annual Master Juror List. The OJC is required to use the Numbered Resident List from the annual state census information provided by the cities and towns in accordance with Chapter 234A, Section 10, of the Massachusetts General Laws. In an attempt to improve the accuracy of the Massachusetts population list, the Legislature included a provision (Section 71) in the Fiscal Year 2008 Budget Act to develop a working group to explore the possibility of creating an Administrative Records List (ARL), which would combine various source list data and could be used to create jury pools, purge voter lists, and develop a better population estimate for the Commonwealth. Our prior report recommended that the OJC explore the possibility of increasing the number of jurors by supplementing the Numbered Resident List from the annual Massachusetts Census with other source list data.

Our follow-up audit noted that OJC management did participate in the ARL working group mandated by the Fiscal Year 2008 Budget Act requirements. The working group released a report in February 2009 identifying potential sources of information that could be used to create an ARL as well as the advantages and disadvantages of developing such a list. The working group identified a number of potential databases that could be used to create an ARL, ultimately concentrating on four sources: the Registry of Motor Vehicles (driver's licenses and identification cards), the Department of Revenue (tax records), the Executive Office of Health and Human Services (public assistance records primarily for low-income individuals), and the Secretary of the Commonwealth (voter registration data). The conclusion of the report recommended further action if the Commonwealth decides to proceed with creating the ARL and suggested potential future funding necessary for the study to proceed.

OJC representatives indicated that after participating in the working group, the OJC determined that the Numbered Resident List from the annual Massachusetts Census is the best source to use because its addresses are current and it sufficiently represents the population. OJC representatives further stated that the use of other source list information would adversely affect undelivered summonses as well as response rates. Specifically, the OJC cited its 2010 Annual Report—which disclosed low percentages for undelivered summonses (8.3%) and the rate for lack of responses (3.3%)—as evidence of the reliability of the Numbered Resident List.

According to the National Center for State Courts, 15% of summonses were undeliverable and 9% received no response, on average. OJC officials also proved us with the following written comments:

*The OJC devotes extensive resources each year to confirming the quality and currency of the census lists it receives. As part of OJC's Master Juror List creation process, any city or town census listing that deviates from prior lists by 5% in either direction is returned to that town with a request for an explanation of the change, or resubmission of a more accurate list. Indeed, the OJC went so far as to file suit against the City of Boston when OJC's integrity processes indicated that Boston's list was not complete, timely and accurate. As a result, OJC now has one of the best, if not the best, Master Juror Lists in the country, as indicated by returned mail and no-response rates well below the national average, among other indicators.*

### **3. PRIOR AUDIT RESULT RESOLVED – IMPROVEMENTS MADE IN JUROR UTILIZATION**

Our prior audit noted that improvements were needed in the OJC's juror utilization and made recommendations to ensure increased juror efficiency by reducing juror target numbers, canceling jurors in advance when it appeared that there would be either no need or reduced need for jurors, monitoring summons yield information, and reinstating the Juror Utilization Subcommittee (JUSC), which was part of the Jury Management Advisory Committee (JMAC) of the SJC. Chapter 234A of the General Laws states that the JMAC, the OJC, and the local trial court departments are responsible for ensuring that the jury system operates efficiently.

Our follow-up review revealed that the JMAC and the Jury Commissioner developed a list of "best practices" by May 13, 2009 and submitted it to the Chief Justice of the SJC and the Chief Justice of the AOTC and that, as a result of the implementation of these new practices, juror efficiency has improved. Specifically, we found that:

- Target numbers were reduced from calendar year 2008 (prior to enactment of the new practices), resulting in 19% (approximately 58,000) fewer jurors appearing at court locations as of December 31, 2010.
- Although the frequency of cancellation of total jury pools remained approximately the same since our last audit, the number of days that jurors appeared at a court without being used decreased, resulting in increased juror efficiency and utilization.
- The OJC closely monitors and has improved summons yield information, partly by implementing the new jury system software and reducing target numbers, resulting in fewer jurors being summoned to appear in court.

- The JUSC reinstated regularly scheduled meetings to study and provide recommendations for the efficient utilization of jurors.

As a result of the actions specified above, the OJC's reported juror utilization (a measure of efficiency) has increased to 44% as of June 30, 2011, compared to a utilization of 36% for calendar year 2008.

#### **4. PRIOR AUDIT RESULT RESOLVED – IMPROVEMENTS MADE IN DEVELOPING AN INTERNAL CONTROL PLAN AND CONDUCTING PERIODIC RISK ASSESSMENTS**

Our prior audit revealed that the OJC did not have a documented Internal Control Plan (ICP), contrary to Chapter 647 of the Acts of 1989 and AOTC Internal Control Guidelines. Further, the OJC had not performed a sufficiently detailed risk assessment, contrary to requirements of the Office of the State Comptroller (OSC). We recommended that the OJC review the AOTC's Internal Control Guidelines for the Trial Court, conduct a risk assessment, and document a high-level ICP that addresses the risks and internal control requirements specific to its operations.

Our follow-up review revealed that the OJC had implemented our prior audit recommendations by developing a documented ICP that includes sufficient detail and complies with the guidelines set forth by the AOTC, Chapter 647, and the OSC. We verified that the ICP included appropriate risk assessments performed by each department within the OJC.

#### **5. COMPUTER SECURITY CONTROLS NEED STRENGTHENING**

The OJC's computer security controls need improvement. Specifically, (a) user accounts were not properly deactivated and (b) password controls should be strengthened, as discussed below.

##### **a. User Accounts Not Properly Deactivated**

During the audit period, the OJC did not have formal procedures to deactivate either network or mission-critical employee user accounts. In addition, the OJC lacked formal policies to control AOTC employees' access privileges to mission-critical and confidential application systems. Moreover, the OJC does not receive notice through its Network and Infrastructure Services (NIS) Department when an employee terminates employment or changes job responsibilities. Instead, the OJC notifies NIS informally, either verbally or through e-mail, that a user's account should be disabled.

Our tests of system access security for the Jury + NextGen (NextGen) application indicated that, contrary to sound access security practices and internal security policies, there were active user accounts that had not been deleted for individuals no longer affiliated with the AOTC or the OJC. Our review of the 327 NextGen application user accounts indicated that five of these accounts should have been deactivated or disabled but were not because NIS was not consistently informed of changes in user status (e.g., resignations, terminations, name changes) by the AOTC Human Resources Department. These five user accounts should have been disabled or terminated in a timely manner, but instead remained active for periods ranging from nine months to one year. During our audit, we brought this matter to the attention of OJC management, which promptly disabled and deleted these active user accounts.

The failure to deactivate user accounts in a timely manner may place the OJC at risk of unauthorized access or use of established privileges. As a result, certain information residing on the NextGen application system could be vulnerable to unauthorized access and disclosure. Further, the OJC could not verify the activity of these user accounts between the termination dates of the employees and the time we notified the OJC of the issue because the application system could not provide access-history information.

### ***Recommendation***

The OJC should work with the AOTC to develop policies and procedures to ensure that the AOTC notifies the OJC whenever an employee ends employment with the OJC or changes job responsibilities, requiring termination or modification of access privileges.

### ***Auditee's Response***

*Shortly after the conclusion of the audit, the OJC established a procedure with AOTC Human Resources to notify the OJC on a monthly basis of all persons separating from Trial Court employment. This is a "safety net" in most cases, as the OJC is usually notified of the departure of NextGen application users, and disables their accounts, before the monthly list arrives from Human Resources. Regardless of the method of notification, accounts are disabled within 24 hours of notification of separation from Trial Court employment, thereby meeting the requirements of the SAO recommendation in this regard. We believe this recommendation is now resolved.*

### **b. Passwords Should Be Strengthened**

The OJC, in conjunction with its software vendor, needs to develop policy rules for password administration and implement changes to the software application system governing password



security. The application OJC is currently using lacks the functionality to set password rules, including minimum length, password complexity, and password expiration dates. In addition, users can only enter a maximum of six characters and administrators cannot monitor password rules established by OJC management, whereas the Commonwealth's Information Technology Division recommends password lengths of at least eight alphanumeric characters. Moreover, the application system does not prompt users to change passwords, though OJC management has set policies requiring users to change passwords every six months.

Insufficient control practices over password administration and composition procedures place the OJC at increased risk for unauthorized access to sensitive data residing on its mission-critical applications. However, we contacted the software vendor, which informed us that the implementation of new program updates will address this issue by requiring more complex passwords that are changed more frequently.

#### ***Recommendation***

The AOTC should enhance IT security policies and procedures by establishing more detailed requirements regarding password administration, including length and composition of passwords, establishment of audit trails, frequency and monitoring of required password changes, and procedures to be followed in the event of unauthorized access or when unauthorized access attempts are detected. We also recommend that the OJC consult with Jury Systems Incorporated (JSI) to determine whether such password configuration and unauthorized access procedure changes can be made to the NextGen application.

#### ***Auditee's Response***

*OJC has raised the issue of password functionality with JSI on multiple occasions. We also implemented internal policies and procedures, such as requiring periodic password changes, to compensate for the lack of these features in the application. We are pleased to report that since the conclusion of the audit in September 2011, JSI has notified OJC and its other clients that it has developed password functionality that meets the OSA's concerns with regard to length and composition of passwords, frequency of password changes, and the like. The requirements of the SAO recommendation have been met with respect to password functionality, and OJC believes this recommendation is resolved.*