



# AUDITOR GENERAL

## WILLIAM O. MONROE, CPA



### BROWARD COUNTY DISTRICT SCHOOL BOARD

### HUMAN RESOURCE MANAGEMENT SYSTEM

Information Technology Audit

**SUMMARY**

The Broward County District School Board (District) maintains the Human Resource Management System (HRMS) that provides application processing for District human resource and payroll functions. Our audit focused on evaluating the management controls and selected information technology (IT) functions applicable to HRMS during the period April 2003 through July 2003, including selected general and application controls related to HRMS; determining management’s awareness of, and actions taken regarding, the Health Insurance Portability and Accountability Act of 1996 (HIPAA); and determining whether the Agency has corrected, or is in the process of correcting, information technology related deficiencies disclosed in audit report No. 01-133, dated March 26, 2001, and the Ernst and Young audit report dated June 30, 2002.

As described below, we noted deficiencies in the District’s HRMS functions and practices:

**Finding No. 1:** HRMS did not provide for edits to preclude the entering of certain conflicting data nor did it maintain an audit trail for changes made to the data.

**Finding No. 2:** Certain District policies created excessive complexity with regard to payroll processing, causing increased payroll workload, payroll error potential, and payroll overpayments.

**Finding No. 3:** Data was not always entered into HRMS in a timely manner.

**Finding No. 4:** Deficiencies were noted in security controls protecting District information resources, including HRMS.

**BACKGROUND**

The District implemented HRMS on July 1, 2001. HRMS is operated in a client server environment and is supported by a mainframe database. HRMS was developed and is maintained by Systems, Applications and Products in Data

Processing Corporation (SAP) while the District operates the HRMS System and maintains its custom modifications. HRMS is used for both the Human Resource and Payroll functions, including payroll processing, financial compliance reporting support, salary budgeting, employee information maintenance, and teacher certification tracking.

The primary users of HRMS are the Payroll Department and Human Resource Division. Functionally, the Payroll Department reports to the Accounting Department within the Office of the Comptroller/Budget. The Comptroller reports to the District Superintendent. The Human Resource Division is headed by the Associate Superintendent for Human Resources who reports to the Chief Operating Officer. The District SAP Support Center is headed by a director who reports to the Chief Operating Officer. Educational Technology Services provides technological support to the District and is overseen by the Chief Operating Officer who reports to the District Superintendent.

**Finding No. 1:  
Edits and Audit Trails**

Proper IT application controls include measures to protect data integrity when data is added or modified. In addition, a sufficiently complete history of transactions maintained for each session involving access to critical and sensitive information helps to permit an audit of the system.

During our audit, we noted that HRMS did not provide for edits to preclude the entering of conflicting data nor did it maintain an audit trail for changes made to the data. Specifically:

- HRMS did not contain proper controls to prevent the entry of conflicting position and employee data. New positions and position changes were entered or modified in HRMS by the Personnel Records staff. Data fields input included the

percentage of full-time equivalency that a particular position was funded. Subsequent to this entry, different Personnel Records staff assigned individual employees to specific positions. This data entry included the entry of the percentage of full-time to which the employee was assigned. The data entry screen used to enter the percentage for the employee defaulted to 100%, even if the position and accompanying percentage had been previously entered at a lower rate. In order to have the correct percentage entered, the data entry operator had to override the 100% default and enter a lesser percentage. Salary payments to individual employees were based in part on the employee's full-time percentage. HRMS did not have edits in place to reject entries for individual employees who had been assigned a higher percentage of full-time than the level approved and previously entered for the position. We noted instances of differences within HRMS in the percentage of full-time equivalency between position data and employee data. We compared, by position number, data recorded for each employee and the corresponding position. We noted instances where the percentage of full-time equivalency for an individual employee was greater than the percentage of full-time equivalency assigned to the position. We notified the District of the exceptions on November 12, 2003. In a response dated December 5, 2003, the District indicated that staff were in the process of researching the differences and that no overpayments had yet been discovered due to conflicting percentage of full-time equivalency data.

- The District was not fully utilizing all of the available SAP logging features to record audit trails for changes made to all data elements. The minimum audit trail function that was in place within HRMS provided the date of and the user responsible for the most recent change to specific data elements. However, this record was overwritten when the data was updated. In addition, the audit trail function did not indicate specific changes made to data elements. The District had activated the full audit trails for changes to employee absence data, and, in response to our audit inquiry, stated that it intended to monitor the performance of HRMS to determine whether the resources were adequate to support additional logging.

An incorrect percentage of full-time equivalency for an individual employee's data may result in overpayments to an employee. Furthermore, the lack of complete change history through the use of audit trails prevents a review of changes to data and reduces individual accountability for those changes.

---

**Recommendation:** The District should determine whether conflicting data exists in HRMS and make appropriate corrections to the data. In addition, edits should be implemented to prevent the entry of conflicting data or procedures should be established to identify and correct data errors on a regular basis. Furthermore, the District should monitor the HRMS performance and implement the audit trails for critical data.

---

#### **Finding No. 2: District Policies**

Good business practices dictate that management periodically reassess the continued applicability and appropriateness of control policies. This reassessment may include determining whether the complexity of policies is commensurate with the organization's size and management style.

Certain District policies created excessive complexity with regard to HRMS payroll processing causing increased payroll workload, payroll error potential, and payroll overpayments. Specifically:

- The District had implemented an excessive number of payroll schedules. For the 2002-2003 school year, including summer, the District had eight different school calendars with seven different payroll schedules and payroll processing dates. This resulted in the processing of 186 payrolls by the District. In addition, employees were permitted to change among payroll calendars during the school year. Although we did not note specific exceptions that occurred as a result, this excessive number of payrolls significantly increased payroll workload and increased the risk of greater payroll error rates, including overpayments.
- Salary rates could be modified retroactively. We noted instances where retroactive decreases in pay created an overpayment situation where the employee owed the District for the excess amounts of the prior payments. Bargaining agreements with the teacher's union required that an employee be contacted before the recovery of the overpayments began and that no more than \$200 was to be recovered per paycheck. In addition, the District indicated that subsequent retroactive increases in pay have caused the District to owe individual employees for past underpayments. The underpayment owed to the employees was not automatically reduced by the overpayments owed to the District by the same employees. The District used manual procedures to reduce the underpayment amounts.
- Starting pay for new teachers could be based on unverified experience. Pay was to be retroactively reduced to the extent verification wasn't received within four months of employment. As noted in

the previous bullet, subsequent to this reduction, we noted instances where pay was retroactively increased upon receipt of experience verification. As a result of our inquiries, the District indicated on September 11, 2003, that this process has been modified to allow increased pay only upon receipt of experience verification.

- We noted instances where retroactive tax reductions made during a given pay period caused apparent discrepancies in the figures presented on individual employees' pay stub reports. Specifically, these retroactive changes reduced the Calendar YTD taxes without affecting that pay period's current taxes and also increased the current Total Gross Earnings without affecting the Calendar YTD gross earnings. No notice, explanation, or reconciling item was presented on that pay period's report to aid the employee or District staff in understanding or explaining these discrepancies. These discrepancies caused additional work for District staff when analyzing potential overpayments. However, during our audit, we noted no instances in which HRMS incorrectly calculated these retroactive adjustments.

The complexities imposed on the District's payroll processes have contributed to payroll processing errors and increased the workload of staff in processing payrolls and correcting errors.

**Recommendation:** The District should analyze adopted policies and determine whether the cost of administering the individual policies exceeds the benefits received by the employees. The costs in this analysis should include the increased efforts of the District's staff as well as the direct costs of additional overpayments and the respective recovery efforts.

**Finding No. 3:  
Timeliness of Data Entry**

Proper procedures are established to assure that data is input, validated, and edited as close to the point of origination as possible.

During our audit, we noted that data was not always entered into HRMS in a timely manner. As previously noted, data entry may be made at any time and may affect an individual employee's future as well as past service records in HRMS, thereby affecting future as well as past payments. Our review of salary overpayments identified by HRMS indicated that many overpayments were caused by the delayed entry of data affecting past payments. During our audit, we reviewed a District report that listed the employee, action, and input date for each separation transaction entered. We noted numerous instances of data entry delays for periods in excess of one year, including the delayed

entry of employee terminations, leave without pay, Family Medical Leave Act unpaid leave, and disability leave. These delays may have resulted in many of the above-mentioned salary overpayments.

Without timely entry of events that significantly affect payroll processing, the risk is increased that improper payments will be made to employees.

**Recommendation:** The District should implement procedures to ensure more timely input of data into HRMS.

**Finding No. 4:  
Security Controls**

Security controls are intended to protect the integrity, confidentiality, and availability of information systems data and resources.

During our audit, we identified deficiencies in certain security control features implemented by the District. Specific details of these deficiencies are not disclosed in this report to avoid the possibility of compromising District information resources. However, the appropriate District personnel have been notified of the deficiencies.

Without adequate security controls in place, the risk is increased that the District's information resources may be subject to improper disclosure or modification.

**Recommendation:** The District should implement the appropriate security control features to enhance the security of HRMS data and programs.

**OTHER MATTERS**

**Health Insurance Portability and  
Accountability Act of 1996 (HIPAA)**

HIPAA<sup>1</sup> addresses data interchange, privacy, and information security standards for personal health information. Pursuant to HIPAA, the United States Department of Health and Human Services has published regulations on electronic data interchange standards, privacy, and security. The final Transaction Rule, which contains electronic data interchange standards, was incorporated as a Federal regulation and had a compliance date of October 16, 2002, but the deadline could have been extended to October 16, 2003, by filing an extension request. The final Privacy Rule was incorporated as a Federal regulation and compliance was required by April 14, 2003. The final Security Rule was incorporated as a Federal regulation and compliance is required by April 21, 2005.

<sup>1</sup> Public Law 104-191

HIPAA also provides for civil and criminal penalties for noncompliance.

In response to our inquiry regarding the HIPAA legislation, the District indicated that information obtained in its operations and sponsorship of various health and welfare programs was subject to HIPAA regulations. In order to establish and ensure compliance with HIPAA, two Interim District Privacy Officers had been designated by the District's Superintendent of Schools. These interim positions, comprised of the Director of Benefits and the Director of Risk Management, were to serve as designees to countersign Business Associate Agreements until such time as a District Privacy Officer is hired. The job description and minimum qualifications for the aforementioned position had been developed. In addition, the District had implemented a new School Board Policy (4019, Protected Health Information) related to HIPAA that was intended to comply with the Privacy Rule. This policy also encompassed all health information received or transmitted by any location or department that was determined to be covered under HIPAA. The performance responsibilities of the District Privacy Officer included reviewing all system-related information security plans throughout the District's network to ensure alignment between security and privacy practices, and functioning as a liaison to Educational Technology Services.

**PRIOR AUDIT FINDINGS**

**Findings this Audit: 4**

**Findings Prior Audit: 4**

**Repeat Findings: (No. 4)**

The District had corrected or was in the process of correcting portions of the information technology related deficiencies noted in audit report No. 01-133. Remaining deficiencies were consolidated for presentation purposes in

this report in Finding No. 4. The specifics related to these issues were provided to the appropriate District staff for follow-up.

**SCOPE, OBJECTIVES, AND METHODOLOGY**

Our audit focused on evaluating the management controls and selected information technology functions applicable to HRMS during the period April 2003 through July 2003. Our objectives were to determine the effectiveness of selected management, general, and application controls related to HRMS, to determine management's awareness of, and actions taken regarding, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and to determine whether the District had corrected, or was in the process of correcting, information technology related deficiencies disclosed in audit report No. 01-133, dated March 26, 2001, and the Ernst and Young audit report dated June 30, 2002.

In conducting the audit, we interviewed appropriate District personnel, observed District processes and procedures, and performed various other audit procedures to test selected controls related to HRMS.

**AUTHORITY**

Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our information technology audit.

*William O. Monroe*

William O. Monroe, CPA  
Auditor General

**DISTRICT'S RESPONSE**

In a letter dated February 6, 2004, the Superintendent provided responses to our preliminary and tentative findings. This letter is included in its entirety at the end of this report.

To promote accountability and improvement in government operations, the Auditor General makes audits of the information technology programs, activities, and functions of governmental entities. This information technology audit was made in accordance with applicable standards contained in **Government Auditing Standards** issued by the Comptroller General of the United States. This audit was conducted by Jennifer Barineau, CPA\*, CISA, and supervised by Tina Greene, CPA\*, CISA. Please address inquiries regarding this report to Jon Ingram, CPA\*, CISA, Audit Manager, via e-mail at [joningram@aud.state.fl.us](mailto:joningram@aud.state.fl.us) or by telephone at (850) 488-0840.

This report and other audit reports prepared by the Auditor General can be obtained on our Web site (<http://www.state.fl.us/audgen>); by telephone (850 487-9024); or by mail (G74 Claude Pepper Building, 111 West Madison Street, Tallahassee, Florida 32399-1450).

\*Regulated by State of Florida.





**THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA**

600 SOUTHEAST THIRD AVENUE • FORT LAUDERDALE, FLORIDA 33301-3125 • TEL 754-321-2600 FAX 754-321-2701

**DR. FRANK TILL**  
*Superintendent of Schools*

**SCHOOL BOARD**

<i>Chair</i>	CAROLE L. ANDREWS
<i>Vice Chair</i>	STEPHANIE ARMA KRAFT, ESQ
	JUDIE S. BUDNICK
	DARLA L. CARTER
	BEVERLY A. GALLAGHER
	ROBERT D. PARKS, Ed.D
	MARTY RUBINSTEIN
	LOIS WEXLER
	BENJAMIN J. WILLIAMS

February 6, 2004

Mr. William O. Monroe, CPA  
Auditor General  
G74 Claude Pepper Building  
111 West Madison Street  
Tallahassee, Florida 32399-1450

Dear Mr. Monroe:

We have received the preliminary and tentative findings and recommendations from the following information technology audit of:

Broward County District School Board  
Human Resource Management System  
For the Period April 2003 through July 2003

Your findings and our related responses are enumerated below:

**Finding No. 1**

**The District should determine whether conflicting data exists in HRMS and make appropriate corrections to the data. In addition, edits should be implemented to prevent the entry of conflicting data or procedures should be established to identify and correct data errors on a regular basis.**

**Furthermore, the District should monitor the HRMS performance and implement the audit trails for critical data.**

**Management Response**

We agree with the Auditor General that the inconsistency in "Percentage Full-time" data record needs to be corrected. Although, as agreed to by the Auditor General, the "Percentage Full-Time" issue has not been specifically linked to any employee overpayment, the possibility does exist.

The School Board of Broward County's SAP Support Center will continue to run and monitor the "Percentage of Position Comparison Report" that was designed for the Auditor General during their on-site review. Any inconsistencies identified will be immediately corrected. A long-term solution, SAP System reconfiguration, will be implemented to provide the edits necessary to limit the possibility of conflicting data entry. This will be done by June 30, 2004.

Additionally, we agree with the recommendation to monitor the HRMS performance and to implement the audit trails for critical data. This issue has always been one of available hardware capability and not the SAP System software capability.

We are addressing the tracking issue with a three-part plan. First, we have already commenced tracking of Positive Time Entries and Time Exceptions (Absences) transactions. The SAP System is now capable of providing a detailed history of each of these transactions, including the identification of who made a change. Second, the HRMS Steering Committee, in conjunction with the Executive Director of Management and Facility Audits and the Finance Division, will identify and prioritize the remaining data elements to be tracked by the SAP System. We will then begin to "turn-on" the SAP System tracking capability element-by-element, carefully monitoring system response and performance. We will continue to systematically add data elements until such time as system performance becomes unacceptably impacted.

Finally, the need to provide complete transaction tracking capability will be considered as SBBC moves forward over the next several months to evaluate, identify and implement a long-term hardware platform strategy.

#### **Finding No. 2**

**The District should analyze adopted policies and determine whether the cost of administering the individual policies exceeds the benefits received by the employees. The costs in this analysis should include the increased efforts of the District's staff as well as the direct costs of additional overpayments and respective recovery efforts.**

#### **Management Response**

We agree that there needs to be a comprehensive review of current business policies. This is necessary to assure that the District and/or employee benefits being derived warrant the costs being incurred to administrate these processes or the risk of employee overpayments inherent in the processes. SBBC has recently engaged the CELT Corporation to undertake a comprehensive review of both the HR/HRMS business processes and the effectiveness of the new computer software to meet those needs. A completion date for the review and implementation of any necessary corrective actions has been established as November 2004.

We agree that there are an excessive number of payrolls and efforts will be made to reduce them. Although the Auditor General did not note any overpayments that correlated directly

back to multiple payrolls, the fact remains that the excessive number of payroll may be a contributing factor to employee overpayments. The SAP Payroll System can be configured to meet most any number of payrolls and/or calendar configurations. Once the Human Resources Division and the Comptrollers Division identify the payroll changes desired, we will work to reach an agreement with the various unions. A timetable for implementation can be established once the desired changes are established and agreed to by all necessary parties. Any change to be implemented will most likely need to be coordinated with the beginning of the School District's Fiscal Year.

We agree that current business processes result in an inordinate number of retroactive changes being input into the SAP System. Some of these changes are retroactive for over a year. The computer system processes these changes correctly. When these changes identify employee underpayments, the employee receives the full amount in their next paycheck without the need for lengthy manual calculations. However, when employee data changes identify overpayments, SBBC has negotiated union restrictions on payback terms by employees. This has resulted in an outstanding receivable balance currently under collection from employees that have been previously overpaid. The business process review discussed above will be conducted in conjunction with the CELT Corporation and will attempt to identify and address those practices that result in the excessive back-dating of employee records.

We agree with the Auditor General's finding with respect to payment for unverified teacher experience. The School District changed their business process to be in line with the Auditors General's recommendation at the beginning of this school year.

We agree with the Audit Report that while all retroactive tax calculations are correct, presentation on the employee paycheck could be clearer. We will immediately seek to refine the system and will have a modification in place by June 30, 2004.

### **Finding No. 3**

#### **The District should implement procedures to insure a more timely input of data into HRMS.**

#### **Management Response**

We agree that past business processes that allow excessive back-dating to Employee Records need to be changed. The new HR/Payroll System is much better at highlighting these backdating actions to management. While there will always be a need to correct payrolls due to erroneous historical employee information, there should be less tolerance of the reasons data is incorrect to start with. Again, the business process review recently initiated will seek to identify and address the causes for the excessive changes to an employee's historical data record.



**Finding No.4****The District should implement the appropriate security control features to enhance the security of HRMS data and programs.****Management Response**

We agree with the findings and recommendations to implement appropriate security features. The Broward School District places great importance on security control of all information technology resources. We have started a review of information technology security control policies and procedures. During the 2004 calendar year, the resulting assessment will be used to address deficiencies and will lead to the development of an implementation plan to strengthen the current security controls.

The security issue that is directed toward the SAP System addresses system access to data elements. We have already begun the process of evaluating and rationalizing access and will have the situation fully addressed by March 31, 2005.

The observations and recommendations in your audit report are appreciated. If you require any further information regarding the actual or proposed corrective actions, please contact Patrick Reilly at 754-321-2400.

Sincerely,



Frank Till  
Superintendent of Schools

FT/PR/jcb