

# AUDIT REPORT



CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
BUREAU OF FINANCIAL AUDIT  
**WILLIAM C. THOMPSON, JR., COMPTROLLER**

## **Audit Report on the Automated Childcare Information System of the Human Resources Administration**

7A03-148

**June 27, 2003**



THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
1 CENTRE STREET  
NEW YORK, N.Y. 10007-2341

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WILLIAM C. THOMPSON, JR.  
COMPTROLLER

**To the Citizens of the City of New York**

Ladies and Gentlemen:

In accordance with the Comptroller's responsibilities contained in Chapter 5, § 93, of the New York City Charter, my office has performed an audit of the Automated Childcare Information System of the Human Resources Administration. The system is the primary resource for maintaining records of all of the Department's enrollments, payments, and other data relating to publicly funded childcare. The results of our audit, which are presented in this report, have been discussed with Human Resources Administration officials, and their comments have been considered in the preparation of this report.

Audits such as this provide a means of ensuring that City agencies are developing computer systems in an efficient, timely, and cost-effective manner.

I trust that this report contains information that is of interest to you. If you have any questions concerning this report, please contact my audit bureau at 212-669-3747 or e-mail us at [audit@Comptroller.nyc.gov](mailto:audit@Comptroller.nyc.gov).

Very truly yours,

A handwritten signature in cursive script that reads "William C. Thompson, Jr.".

William C. Thompson, Jr.

WCT/GR

Report: 7A03-148  
Filed: **June 27, 2003**

*The City of New York  
Office of the Comptroller  
Bureau of Financial Audit  
EDP Audit Division*

**Audit Report on the  
Automated Childcare Information System  
Of the Human Resources Administration**

**7A03-148**

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**AUDIT REPORT IN BRIEF**

We performed an audit on the Automated Childcare Information System of the Human Resources Administration (the Department). The Automated Childcare Information System (ACCIS) was developed in 1999 by Department in-house staff as a childcare case management and payment system to improve the timeliness of payments to childcare providers and individuals eligible for childcare benefits. In 2001, ACCIS was modified and expanded to aid public assistance clients with their childcare needs. In that regard, ACCIS can issue childcare vouchers, assign children to provider waiting lists, make payments to providers, and produce invoices, letters, transmittals, and notices of termination of benefits. It currently supports approximately 30,000 active HRA cases while processing approximately \$600 million in payments annually.

**Audit Findings and Conclusions**

The audit found that ACCIS met the objectives and overall goals of Department management and allows for future enhancements and upgrades. In addition, the Department followed a formal system methodology when developing ACCIS, and the system has been adequately incorporated into the Department's disaster recovery plan.

The auditors' survey of the system's users found that although 86 percent of the respondents are happy with ACCIS, 50 percent of the users stated that they would like to see changes made to the system. Fifty-five percent reported a variety of technical and training issues that should be addressed, and thirty-eight percent stated that ACCIS is not user-friendly. Finally, ACCIS access controls need improvement.

## **Audit Recommendations**

The audit makes four recommendations, namely that the Department:

- Ensure that all user concerns are addressed.
- Conduct user surveys periodically to identify user concerns.
- Promptly delete from the system all inactive, terminated, and multiple user identifications (IDs) and test-IDs.
- Require and enforce periodic changes in user passwords and the selection of unique user IDs.
- Reduce the number of employees with the capability of creating user IDs.

## **INTRODUCTION**

### **Background**

The Human Resources Administration (the Department) serves a diverse group of New Yorkers through a wide range of social service programs, including the City's welfare reform initiatives. The mission of the Department is to ensure that every capable New Yorker who receives public assistance becomes financially independent and self-sufficient through sustainable employment. In addition to its employment services, the Department's other programs provide food, shelter, temporary financial assistance, medical care, counseling and other essential services to needy individuals who meet eligibility requirements.

The Department's childcare services provide full and part-time childcare benefits for both public assistance families and families who have left public assistance for employment. Parents eligible for childcare benefits include: those engaged in a work related activity, such as work experience, job search, training or education, or substance abuse treatment; those who are employed but have an open public assistance case; or those who are employed, have had a public assistance case closed in the past year, and have met income and other eligibility criteria for Transitional Childcare.

The Automated Childcare Information System (ACCIS) was developed in 1999 by Department in-house staff as a childcare case management and payment system to improve the timeliness of payments to childcare providers and individuals eligible for childcare benefits. In 2001, ACCIS was modified and expanded to aid public assistance clients with their childcare needs. In that regard, ACCIS can issue childcare vouchers, assign children to provider waiting lists, make payments to providers, and produce invoices, letters, transmittals, and notices of termination of benefits. It currently supports approximately 30,000 active HRA cases while processing approximately \$600 million in payments annually. ACCIS interacts with the New York City Work, Accountability, You system (NYCWAY), which is used to monitor clients' work activity. ACCIS receives weekly updated information on public assistance eligibility from the New York State Department of Social Services' Welfare Management System (WMS) and receives daily updated provider license information from the New York State Department of

Health. ACCIS is the primary resource for maintaining records of all of the Department's enrollments, payments, and other data relating to publicly funded childcare.

### **Objectives**

The audit's objectives were to evaluate whether:

- ACCIS met management's original and modified objectives;
- ACCIS allows for future enhancements and upgrades;
- Users of ACCIS are satisfied with the system;
- A system development methodology was used during development; and
- ACCIS has been included in the Department disaster recovery plan.

### **Scope and Methodology**

Audit fieldwork was conducted from March 2003 through May 2003. To achieve our audit objectives, we interviewed Department staff and reviewed and analyzed:

- (1) ACCIS original specifications (1995-96) and modifications (2000);
- (2) The ACCIS testing database;
- (3) The Department ACCIS Training Guide;
- (4) The actual Department project timeline;
- (5) System testing documentation (historic documents);
- (6) Rollout deployment plans;
- (7) List of ACCIS users; and
- (8) A user satisfaction survey, in which we randomly selected 200 out of 3,169 system users on ACCIS (42 active users responded).

We used Comptroller's Internal Control and Accountability Directive 18, *Guidelines for the Management, Protection and Control of Agency Information and Information Processing Systems*, the Federal Information Processing Standards and the National Institute of Standards and Technology *Generally Accepted Principles and Practices for Securing Information Technology Systems* as criteria for this audit. As the City has no formal system development methodology, we used the National Institute of Standards and Technology Special Publication #500-233, *A Framework for the Development and Assurance of High Integrity Software*, to assess whether a system development methodology had been followed.

This audit was conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) and included tests of the records and other auditing procedures considered

necessary. This audit was performed in accordance with the City Comptroller's audit responsibilities, as set forth in Chapter 5, § 93, of the New York City Charter.

### **Discussion of Audit Results**

The matters covered in this report were discussed with Department officials during and at the conclusion of this audit. A preliminary draft report was sent to Department officials and discussed at an exit conference held on June 10, 2003. On June 12, 2003, we submitted a draft report to Department officials with a request for comments. We received a written response from the Department on June 25, 2003. The Department generally agreed with the audit's findings and recommendations stating: "The report has assisted us in our on-going efforts to improve the operations of our agency. We were very pleased to note that your survey of the Automated Child Care Information System (ACCIS) users showed that the overwhelming majority, 86%, is happy with the system."

The full text of the Department's comments is included as an Addendum to this report.

## FINDINGS

ACCIS met the Department's business and system requirements. The system design allowed for future enhancements and upgrades, and the system met the overall goals as stated in the system justification. In addition, the Department followed a formal system methodology when developing ACCIS. Furthermore, ACCIS has been adequately incorporated into the Department's disaster recovery plan.

Although our user satisfaction survey revealed that 86 percent of the respondents are happy with ACCIS, 50 percent of the users stated that they would like to see changes made to the system, fifty-five percent reported a variety of technical and training issues that should be addressed, and thirty-eight percent stated that ACCIS is not user-friendly. In addition, the Department has not surveyed its system users to obtain their comments on the system. Furthermore, ACCIS access controls need improvement.

These issues are discussed in the following sections of the report.

### **User Satisfaction**

Thirty-six (86 percent) of the 42 active users who responded to our survey reported that they were happy with the system. However 21 users reported that they would like to see changes made to ACCIS. Some of the suggested changes included:

- Eliminating delays in the distribution of new application enhancements;
- Streamlining the process for using the system by reducing the number of steps involved;
- Improving screens; and
- Incorporating more interactive help menus.

In addition, 23 users (55 %) reported that system response time is too slow, that there is excessive system downtime, and that more system training is needed. Finally, 16 users (38 percent) reported that ACCIS is not user-friendly.

**Department Response:** "We agree with this finding. We will review the concerns disclosed in the report and make changes as appropriate, giving priority to issues concerning State mandates and accuracy in the processing of our cases."

### **The Department Did Not Survey ACCIS Users**

The Department has not surveyed ACCIS users to determine whether the system is adequately performing its intended functions. Comptroller's Directive 18, §11.8, states:

“Periodic commentary from end users is an effective method that executive management can use for assessing information processing environment performance. Satisfaction reports from the end user community will frequently highlight common or recurring problems requiring executive management's attention. These reports are most useful if they flow to executive management independent of the information systems group.”

However, as stated previously, the Department has never surveyed users to learn whether they are satisfied with the system. Moreover, as previously stated, our survey found that the users, while happy with ACCIS, feel that system modifications are necessary.

**Department Response:** “We partially agree with this finding. Currently, regular weekly meetings are conducted with user representatives at which concerns and requests for program modifications are presented and discussed. The suggestions raised at these meetings are incorporated into the application. In addition, our Child Care Specialists from the Field Support Unit are in the field on a daily basis working with users and report comments about the system. However, we will consider the benefits of conducting a written user satisfaction survey, and if they are compelling, will conduct such a survey.”

### **Access Control Weaknesses**

Directive 18 states that “there are many software based controls that can be employed to help protect the information processing environment.” One of these controls is to restrict access to only those users who are authorized to access the system's information. User identifications (IDs) and passwords are among the most widely used forms of access control. Our review revealed that while the Department has developed data security procedures, there are certain weaknesses in access controls for ACCIS, which are discussed below.

#### **Inactive User IDs and Log-in Access Not Adequately Controlled**

Comptroller's Directive 18, § 8.1.2, states: “Active password management includes deactivation of inactive user accounts and accounts for employees whose services have terminated.” We found that 28 of the 70 users surveyed had either never initially logged onto ACCIS or had not accessed the system within the last six months. However, the user IDs for these 28 individuals were not deleted from the system or disabled. We also found that six former employees still had access to ACCIS.

**Department Response:** “We agree with this finding and will disable all inactive ACCIS user IDs to ensure compliance with Agency protocols and appropriate Comptroller's



Directives and other external standards with respect to control of user access and security for information systems applications.”

### **No Requirement for Users to Change Passwords**

Comptroller’s Directive 18, § 8.1.2, states that “active password management includes insuring that users are forced to change passwords periodically.” However, Department procedures do not require that ACCIS users change their passwords periodically.

**Department Response:** “We agree with this finding. Beginning in August 2003, we will require that passwords be changed every three months.”

### **Test-Passwords Not Deleted**

Federal Information Processing Standard 112, § 3.4.2, states: “All passwords that may be included in a new system when it is delivered, transferred, or installed (e.g., passwords for the operator, system programmer, maintenance personnel, or security officer) shall be immediately changed by the Security Officer.” However, we found five test-passwords still present in the system.

**Department Response:** “We agree with this finding and will immediately delete all test passwords from the system.”

### **Users Do Not Have Unique User IDs**

The NIST Generally Accepted Principles and Practices for Securing Information Technology Systems § 3.11.1 states: “An organization should require users to identify themselves uniquely before being allowed to perform any actions on the system.” However we found that all 3,169 ACCIS user IDs are linked to each user’s identity. We also found that 32 users had multiple user IDs.

**Department Response:** “We agree with this finding and have begun tracing the 32 users that have multiple IDs to determine the reason. It should be noted that some users legitimately have two IDs—one for HRA and one for the Administration for Children’s Services (ACS). These staff members work on client cases from both agencies and must have access to them. Should our review disclose that there are users with multiple IDs who do not require such access, we will delete the excess user IDs.”

### **Ability to Create User IDs Not Adequately Restricted**

Comptroller’s Directive 18 § 8.1.2 states that “Access authorization must be carefully designed to insure that employees have access only to files or programs that are necessary for their job function.” However, we found 20 people, including agency employees and outside consultants, with the capability to create user IDs. Allowing this many individuals to have the capability of creating user IDs poses a security risk to the system.

**Department Response:** “ We agree with this finding and will reduce the number of persons with this capability.”

## RECOMMENDATIONS

The Department should:

1. Ensure that all user concerns are addressed.

**Department Response:** “We agree with this recommendation and as detailed below will take steps to ensure that the concerns raised in this report are addressed.”

2. Conduct user surveys periodically to identify user concerns.

**Department Response:** “We partially agree with this recommendation. As stated above, we currently conduct weekly meeting with the users at which time concerns and requests for program changes are presented. In addition our Child Care Specialists collect feedback from users in the field which is relayed to the programmers and analysts for consideration, prioritization, and possible incorporation in the future system modifications. We will consider the benefits of conducting a written survey and if they are compelling, will conduct such a survey.”

3. Promptly delete from the system all inactive, terminated, and multiple IDs and test-IDs.

**Department Response:** “We agree with this recommendation and will immediately delete all inactive, terminated, test and illegitimate multiple IDs, and IDs which have never been used.”

4. Require and enforce periodic changes in user passwords and the selection of unique user IDs.

**Department Response:** “We partially agree with this recommendation. Beginning in August, we will require that passwords be changed periodically. Concerning the selection of anonymous user IDs, we are considering whether the benefits and the costs of such a fundamental change is in the best interest of the agency.”

5. Reduce the number of employees with the capability of creating user IDs.

**Department Response:** “We agree with this recommendation and will take immediate action to reduce the number of employees who have the capability of creating user IDs.”



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VERNA EGGLESTON  
*Administrator/Commissioner*

DAN LEHMAN  
*Executive Deputy Commissioner*

June 25, 2003

Mr. Greg Brooks  
Deputy Comptroller  
Policy, Audit, Accountancy & Contracts  
The City of New York  
Office of the Comptroller  
1 Centre Street – Room 530  
New York, NY 10007-2341

Re: Audit Report on the Automated Childcare  
Information System (ACCIS) of the  
Human Resources Administration  
Audit # 7A03-148

Dear Mr. Brooks:

Thank you for the opportunity to respond to the draft report on the referenced review. The report has assisted us in our ongoing efforts to improve the operations of our agency. We were very pleased to note that your survey of the Automated Child Care Information System (ACCIS) users showed that the overwhelming majority, 86%, is happy with the system.

Following are our specific responses to the audit findings and recommendations:

**User Satisfaction**

**Auditors' Finding:** Our user satisfaction survey revealed that while 86 percent of the respondents are happy with ACCIS, 50 percent of the users stated they would like to see changes made to the system. Some 55 percent reported a variety of technical and training issues that should be addressed, and 38 percent stated that ACCIS is not user-friendly.

**Agency's Response:** We agree with this finding. We will review the concerns disclosed in the report and make changes as appropriate, giving priority to issues concerning State mandates and accuracy in the processing of our cases.

### **The Department Did Not Survey ACCIS Users**

**Auditors' Finding:** The Department has not surveyed ACCIS users to determine whether the system is adequately performing its intended functions. The Department has never surveyed users to learn whether they are satisfied with the system.

**Agency's Response:** We partially agree with this finding. Currently, regular weekly meetings are conducted with user representatives at which concerns and requests for program modifications are presented and discussed. The suggestions raised at these meetings are incorporated into the application. In addition, our Child Care Specialists from the Field Support Unit are in the field on a daily basis working with users and report comments about the system. However, we will consider the benefits of conducting a written user satisfaction survey, and if they are compelling, will conduct such a survey.

### **Access Control Weaknesses**

#### **Inactive User IDs and Log-in Access Not Adequately Controlled**

**Auditors' Finding:** Comptroller's Directive 18, & 8.1.2, states that, "Active password management includes deactivation of inactive user accounts and accounts for employees whose services have terminated." We found that 28 of the 70 users surveyed had either never initially logged onto ACCIS or had not accessed the system within the last six months. However, the user IDs for these 28 individuals were not deleted from the system or disabled. We also found that six former employees still had access to ACCIS.

**Agency's Response:** We agree with this finding and will disable all inactive ACCIS user IDs to ensure compliance with Agency protocols and appropriate Comptroller's Directives and other external standards with respect to control of user access and security for information systems applications.

#### **No Requirement for Users to Change Passwords**

**Auditors' Finding:** Comptroller's Directive 18, & 8.1.2, states that, "active password management includes insuring that users are forced to change passwords periodically." However, Department procedures do not require that ACCIS users change their passwords periodically.

**Agency's Response:** We agree with this finding. Beginning in August 2003, we will require that passwords be changed every three month.

#### **Test-Passwords Not Deleted**

**Auditors' Finding:** Federal Information processing Standard 112, & 3.4.2, states that, "All passwords that may be included in a new system when it is delivered, transferred, or installed (e.g., passwords for the operator, system programmer, maintenance personnel, or

security officer) that be immediately changed by the Security Officer.” However, we found five test-passwords still present in the system.

**Agency’s Response:** We agree with this finding, and will immediately delete all test passwords from the system.

#### **Users Do Not Have Unique User IDs**

**Auditors’ Finding:** The NIST Generally Accepted Principles and Practices for Securing Information Technology Systems & 8.1.2, states that, “An organization should require users to identify themselves uniquely before being allowed to perform any actions on the system.” However, we found that all 3,169 ACCIS user IDs are linked to each user’s identify. We also found that 32 users had multiple user IDs.

**Agency’s Response:** We agree with this finding and have begun tracing the 32 users that have multiple IDs to determine the reason. It should be noted that some users legitimately have two IDs – one for HRA and one for the Administration for Children Services (ACS). These staff members work on client cases from both agencies and must have access to them. Should our review disclose that there are users with multiple IDs who do not require such access, we will delete the excess user IDs.

#### **Ability to Create User IDs Not Adequately Restricted**

**Auditors’ Finding:** Comptroller’s Directive 18 & 8.1.2, states that, “Access authorization must be carefully designed to insure that employees have access only to files or programs that are necessary for the job function.” However, we found 20 people, including agency employees and outside consultants, with the capability to create user IDs. Allowing this many individuals to have the capability of creating user IDs poses a security risk to the system.

**Agency’s Response:** We agree with this finding and will reduce the number of persons with this capability.

**Auditors’ Recommendation #1:** The Department should ensure that all concerns are addressed.

**Agency’s Response:** We agree with this recommendation and as detailed below will take steps to ensure that the concerns raised in this report are addressed.

**Auditors’ Recommendation #2:** The Department should conduct user surveys periodically to identify user concerns.

**Agency’s Response:** We partially agree with this recommendation. As stated above, we currently conduct weekly meetings with the users at which time concerns and requests for program changes are presented. In addition, our Child Care Specialists collect feedback from

users in the field which is relayed to the programmers and analysts for consideration, prioritization and possible incorporation in future system modifications. We will consider the benefits of conducting a written survey, and if they are compelling, will conduct such a survey.

**Auditors' Recommendation #3: The Department should promptly delete from the system all inactive, terminated, and multiple IDs and test-IDs.**

**Agency's Response:** We agree with this recommendation and will immediately delete all inactive, terminated, test, and illegitimate multiple IDs, and IDs which have never been used.

**Auditors' Recommendation #4: The Department should require and enforce periodic changes in user passwords and the selection of unique user IDs.**

**Agency's Response:** We partially agree with this recommendation. Beginning in August, we will require that passwords be changed periodically. Concerning the selection of anonymous user IDs, we are considering whether the benefits and the costs of such a fundamental change is in the best interest of the agency.


**Auditors' Recommendation #5: The Department should reduce the number of employees with capability of creating user IDs.**

**Agency's Response:** We agree with this recommendation and will take immediate action to reduce the number of employees who have the capability of creating user IDs.

Again, thank you for the opportunity to respond to the audit and we trust that this response will be included in the final report. We believe that the corrective actions outlined above will address the findings and recommendations identified by the auditors.

Should you have any questions or concerns, please contact Hope Henderson, Director of the Bureau of Audit Coordination (212) 331-3522.

Sincerely,

  
Dan Lehman

C: Patricia Smith  
David Hansell