

NORTHERN LEHIGH SCHOOL DISTRICT
LEHIGH COUNTY, PENNSYLVANIA
PERFORMANCE AUDIT REPORT

JANUARY 2010

The Honorable Edward G. Rendell
Governor
Commonwealth of Pennsylvania
Harrisburg, Pennsylvania 17120

Mr. Edward E. Hartman, Board President
Northern Lehigh School District
1201 Shadow Oaks Lane
Slatington, Pennsylvania 18080

Dear Governor Rendell and Mr. Hartman:

We conducted a performance audit of the Northern Lehigh School District (NLSD) to determine its compliance with applicable state laws, regulations, contracts, grant requirements, and administrative procedures. Our audit covered the period August 30, 2007 through September 23, 2009, except as otherwise indicated in the report. Additionally, compliance specific to state subsidy and reimbursements was determined for the school years ended June 30, 2008 and June 30, 2007. Our audit was conducted pursuant to 72 P.S. § 403 and in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States.

Our audit found that the NLSD complied, in all significant respects, with applicable state laws, regulations, contracts, grant requirements, and administrative procedures. However, we identified one matter unrelated to compliance that is reported as an observation. A summary of these results is presented in the Executive Summary section of the audit report.

Our audit observation and recommendations have been discussed with NLSD's management and their responses are included in the audit report. We believe the implementation of our recommendations will improve NLSD's operations and facilitate compliance with legal and administrative requirements. We appreciate the NLSD's cooperation during the conduct of the audit and their willingness to implement our recommendations.

Sincerely,

/s/

JACK WAGNER
Auditor General

January 26, 2010

cc: **NORTHERN LEHIGH SCHOOL DISTRICT** Board Members

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Executive Summary

Audit Work

The Pennsylvania Department of the Auditor General conducted a performance audit of the Northern Lehigh School District (NLSD). Our audit sought to answer certain questions regarding the District's compliance with applicable state laws, regulations, contracts, grant requirements, and administrative procedures; and to determine the status of corrective action taken by the NLSD in response to our prior audit recommendations.

Our audit scope covered the period August 30, 2007 through September 23, 2009, except as otherwise indicated in the audit scope, objectives, and methodology section of the report. Compliance specific to state subsidy and reimbursements was determined for school years 2007-08 and 2006-07.

District Background

The NLSD encompasses approximately 27 square miles. According to 2000 federal census data, it serves a resident population of 13,048. According to District officials, in school year 2007-08 the NLSD provided basic educational services to 2,060 pupils through the employment of 150 teachers, 119 full-time and part-time support personnel, and 16 administrators. Lastly, the NLSD received more than \$9.5 million in state funding in school year 2007-08.

Audit Conclusion and Results

Our audit found that the NLSD complied, in all significant respects, with applicable state laws, regulations, contracts, grant requirements, and administrative procedures; however, as noted below, we identified one matter unrelated to compliance that is reported as an observation.

Observation: Unmonitored IU System Access and Logical Access Control

Weaknesses. We noted that NLSD personnel should improve controls over remote access to its computers. In particular, controls should be strengthened over outside IU access to the student accounting applications (see page 6).

Status of Prior Audit Findings and

Observations. With regard to the status of our prior audit recommendations to the NLSD from an audit we conducted of the 2005-06 and 2004-05 school years, we found the NLSD had taken appropriate corrective action in implementing our recommendations pertaining to Statements of Financial Interests (see page 11).



Audit Scope, Objectives, and Methodology

Scope

What is a school performance audit?

School performance audits allow the Department of the Auditor General to determine whether state funds, including school subsidies, are being used according to the purposes and guidelines that govern the use of those funds. Additionally, our audits examine the appropriateness of certain administrative and operational practices at each Local Education Agency (LEA). The results of these audits are shared with LEA management, the Governor, the PA Department of Education, and other concerned entities.

Our audit, conducted under authority of 72 P.S. § 403, is not a substitute for the local annual audit required by the Public School Code of 1949, as amended. We conducted our audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States.

Our audit covered the period August 30, 2007 through September 23, 2009.

Regarding state subsidy and reimbursements, our audit covered school years 2007-08 and 2006-07.

While all districts have the same school years, some have different fiscal years. Therefore, for the purposes of our audit work and to be consistent with Department of Education reporting guidelines, we use the term school year rather than fiscal year throughout this report. A school year covers the period July 1 to June 30.

Objectives

Performance audits draw conclusions based on an evaluation of sufficient, appropriate evidence. Evidence is measured against criteria, such as, laws, regulations, and defined business practices. Our audit focused on assessing the NLSA's compliance with applicable state laws, regulations, contracts, grant requirements, and administrative procedures. However, as we conducted our audit procedures, we sought to determine answers to the following questions, which serve as our audit objectives:

- ✓ Were professional employees certified for the positions they held?
- ✓ Did the District follow applicable laws and procedures in areas dealing with pupil membership and ensure that adequate provisions were taken to protect the data?
- ✓ Is the District's pupil transportation department, including any contracted vendors, in compliance with applicable state laws and procedures?

What is the difference between a finding and an observation?

Our performance audits may contain findings and/or observations related to our audit objectives. Findings describe noncompliance with a law, regulation, contract, grant requirement, or administrative procedure. Observations are reported when we believe corrective action should be taken to remedy a potential problem not rising to the level of noncompliance with specific criteria.

- ✓ Does the District ensure that Board members appropriately comply with the Public Official and Employee Ethics Act?
- ✓ Are there any declining fund balances which may impose risk to the fiscal viability of the District?
- ✓ Did the District pursue a contract buyout with an administrator and if so, what was the total cost of the buy-out, reasons for the termination/settlement, and do the current employment contract(s) contain adequate termination provisions?
- ✓ Were there any other areas of concern reported by local auditors, citizens, or other interested parties which warrant further attention during our audit?
- ✓ Is the District taking appropriate steps to ensure school safety?
- ✓ Did the District take appropriate corrective action to address recommendations made in our prior audits?

Methodology

What are internal controls?

Internal controls are processes designed by management to provide reasonable assurance of achieving objectives in areas such as:

- Effectiveness and efficiency of operations;
- Relevance and reliability of operational and financial information;
- Compliance with applicable laws, regulations, contracts, grant requirements and administrative procedures.

Government Auditing Standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our observation and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observation and conclusions based on our audit objectives.

NLSD management is responsible for establishing and maintaining effective internal controls to provide reasonable assurance that the District is in compliance with applicable laws, regulations, contracts, grant requirements, and administrative procedures. Within the context of our audit objectives, we obtained an understanding of internal controls and assessed whether those controls were properly designed and implemented.

Any significant deficiencies found during the audit are included in this report.

In order to properly plan our audit and to guide us in possible audit areas, we performed analytical procedures in the areas of state subsidies/reimbursement, pupil membership and pupil transportation.

Our audit examined the following:

- Records pertaining to bus driver qualifications, professional employee certification, state ethics compliance, and financial stability.
- Items such as Board meeting minutes.

Additionally, we interviewed selected administrators and support personnel associated with NLSD operations.

Lastly, to determine the status of our audit recommendations made in a prior audit report released on January 24, 2008, we performed additional audit procedures targeting the previously reported matter.

Findings and Observations

Observation

Unmonitored IU System Access and Logical Access Control Weaknesses

What is logical access control?

“Logical access” is the ability to access computers and data via remote outside connections.

“Logical access control” refers to internal control procedures used for identification, authorization, and authentication to access the computer systems.

The Northern Lehigh School District uses software purchased from the Carbon Lehigh Intermediate Unit #21 (CLIU) for its critical student accounting applications (membership and attendance). Additionally, the District’s entire computer system, including all its data and the above software are maintained on the CLIU’s servers which are physically located at the CLIU. The District has remote access into the CLIU’s network servers, with the CLIU providing system maintenance and support.

Based on our current year procedures, we determined that a risk exists that unauthorized changes to the District’s data could occur and not be detected because the District was unable to provide supporting evidence that they are adequately monitoring all CLIU activity in their system. However, since the District has adequate manual compensating controls in place to verify the integrity of the membership and attendance information in its database, that risk is mitigated.

Reliance on manual compensating controls becomes increasingly problematic if the District would ever experience personnel and/or procedure changes that could reduce the effectiveness of the manual controls.

Unmonitored CLIU system access and logical access control weaknesses could lead to unauthorized changes to the District’s membership information and result in the District not receiving the funds to which it was entitled from the state.

During our review, we found the District had the following weaknesses over vendor access to the District’s system:

1. The District’s Acceptable Use Policy does not include provisions for authentication (password security and syntax requirements).

2. The District has certain weaknesses in logical access controls. We noted that the District's system parameter settings do not require all users, including the CLIU, to change their passwords every 30 days; to use passwords that are a minimum length of eight characters and to lock out users after three unsuccessful attempts.
3. The CLIU has unlimited access (24 hours a day/7 days a week) into the District's system.
4. The District does not have evidence they are generating or reviewing monitoring reports of user access and activity on the system (including CLIU and District employees). There is no evidence that the District is performing procedures in order to determine which data the CLIU may have altered or which CLIU employees accessed their system.

Recommendations

The *Northern Lehigh School District* should:

1. Ensure that the District's Acceptable Use Policy includes provisions for authentication (password security and syntax requirements).
2. Implement a security policy and system parameter settings to require all users, including the CLIU, to change their passwords on a regular basis (i.e., every 30 days). Passwords should be a minimum length of eight characters. Also, the District should lock out users after three unsuccessful attempts.
3. Only allow access to their system when the CLIU needs access to make pre-approved changes/updates or requested assistance. This access should be removed when the CLIU has completed its work. This procedure would also enable the monitoring of CLIU changes.

4. Generate monitoring reports (including firewall logs) of CLIU and employee access and activity on their system. Monitoring reports should include the date, time, and reason for access, change(s) made and who made the change(s). The District should review these reports to determine that the access was appropriate and that data was not improperly altered. The District should also ensure it is maintaining evidence to support this monitoring and review.

Management Response

Management stated the following:

We accept the Auditor's observation (#1) regarding our AUP lacking provisions for authentication. The Director of Technology along with the School Board policy committee will revise our Acceptable User Policy to include provisions for authentication (password security and syntax). This of course will take a few months because of policy reading and approval process requirements, but it will be done as soon as possible

We also accept the Auditor's observation (#2) regarding weakness in our logical access controls. We intend to implement the recommended changes no later than October 1, 2009. We will require our staff, including teachers that access PowerSchool, to use passwords with a minimum length of eight (8) characters; require them to change their passwords every thirty (30) days; and will change our intrusion lock out to prohibit access to the system after three (3) unsuccessful attempts are made to access the system. This will be accomplished by synchronizing the user's password to the PowerSchool system via our LDAP server and eDirectory. We cannot however enforce this password change on IU #21 personnel that access the PowerSchool server since they do not authenticate to our server utilizing eDirectory services. The PowerSchool server to my knowledge had no mechanism that forces the user to change or have a minimum length password though it does have a mechanism to lock a user out after three (3) unsuccessful attempts to access the system. We will however ask that CLIU #21 require any of their personnel adhere to our password guidelines.

The Auditor's observation (#3) regarding the IU #21 personnel having unlimited access to our PowerSchool server, we agree they have 24 hour a day, 7 days a week access to our PowerSchool server. What ASP (Application Service Provider) or SaaS (Software as a Service) provider doesn't have is similar access since they own the hardware, software and infrastructure, but not the data. Not to mention they are our HelpDesk for this application and are essentially on-call 24 hours at least 5 days a week. Since this is our local Intermediate Unit and they are an educational agency, which was created by the General Assembly to service the educational needs of a geographical region, we have a much different relationship with them then say an outside company like SchoolWorld or SchoolDude who are also ASPs providing applications. Additionally, the IU requires their personnel to have all clearances and sign a non-disclosure agreement. We could in fact limit their access to the system by either changing their access rights or locking their accounts until we needed help from them, but this would become impractical, cumbersome and delay our own operations should we encounter a problem.

In response to observation (#4), again the IU provides the firewall for our school district because they act as our ISP (Internet Service Provider) and manage the wide area network connecting them and us (our district) to the actual Internet. That being the case they also manage the firewall and content management systems required by the Children's Internet Protection Act (CIPA). Again they have systems network administrators that monitor the firewall and content management system, we have no access to those systems and rely on them to monitor them and give us the data should they/we suspect something is amiss. We do however have a data loss/compliance server that records everything that goes across our network and can monitor all activity on our network. Considering the amount of traffic on our network it is impractical for someone to monitor this constantly, but we do look at it periodically or if we suspect something inappropriate is going on or occurred on the network.

They (CLIU #21), by virtue of owning the hardware and software which constitutes our district's PowerSchool server, have access both physically and logically to the server at all times. There are various logs on the PowerSchool server that can be tapped should we suspect anything wrong is/has occurred. Since they (CLIU #21) administer the system, they would have access to the logs and help us track down the problem. The IU Support personnel log each and every call from our district for assistance with the PowerSchool application so that they can track what their personnel did in response to a request for help or accessing our data in order to fix a problem. If you would like us to keep copies of these requests and monitor them we will approach the IU about either getting access to their system or sending us reports periodically.

I don't believe our situation is unique in response to observations #3 and #4 because there are approximately forty (40) other school districts that have exactly the same relationship with CLIU #21 that we do concerning our SIS (student accounting system). I will be discussing these observations with the other school districts in our area that use CLIU #21 as their vendor for PowerSchool and the MIS Director at CLIU #21 to review your concerns and recommendations to see if there are practical, cost effective solutions.

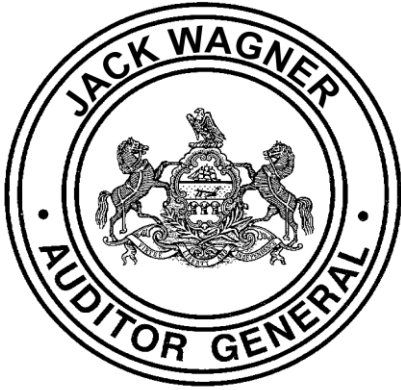
Auditor Conclusion

The conditions and recommendations stated above represent the information communicated to the auditors during our fieldwork. Any subsequent improvements or changes in management representations will be evaluated in the subsequent audit. The observation will stand as presented.

Status of Prior Audit Findings and Observations

Our prior audit of the Northern Lehigh School District (NLSD) for the school years 2005-06 and 2004-05 resulted in one reported finding pertaining to Statements of Financial Interests. As part of our current audit, we determined the status of corrective action taken by the District to implement our prior recommendations. We performed audit procedures, and questioned District personnel regarding the prior finding. As shown below, we found that the NLSD did implement recommendations related to filing of Statements of Financial Interests forms.

<i>School Years 2005-06 and 2004-05 Auditor General Performance Audit Report</i>		
<i>Prior Recommendations</i>	<i>Implementation Status</i>	
<p><u><i>Finding: Former Board Member Failed to File a Statement of Financial Interests</i></u></p> <ol style="list-style-type: none"> 1. Seek the advice of its solicitor in regard to the board's responsibility when members fail to file or fail to file in a timely manner their Statements of Financial Interests forms. 2. Continue their efforts to ensure that board members annually submit Statements of Financial Interests forms. 	<p>Background:</p> <p>Our prior audit of District records for calendar year ended December 31, 2005 and 2006 found that one former board member did not file a Statements of Financial Interests form for the year ending December 31, 2005.</p>	<p>Current Status:</p> <p>We followed up on the NLSD's records and found that the NLSD <u>did</u> take appropriate corrective action to ensure all former board members filed a Statements of Financial Interests form.</p>



Distribution List

This report was initially distributed to the superintendent of the school district, the board members, our website address at www.auditorgen.state.pa.us, and the following:

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