

Nomination Form

Please complete entire form. All nominations must be postmarked no later than Monday, July 15, 2002.

Title of Nomination: _____ Data Integration for Effective Reporting And Efficient
_____ Fiscal Management _____

Project/System Manager: _____ Brenda Morris _____

Job Title: _____ Instructional Technology Coordinator _____

Agency: _____ West Virginia Department of Education _____

Department: _____ Office of Instructional Technology _____

Address: _____ 1900 Kanawha Blvd., East _____
_____ Building 6, Room 346 _____

City: _____ Charleston _____

State: _____ West Virginia _____ Zip: _____ 25305-0330 _____

Phone: _____ 304.558.3538 _____

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Email: _____ bmorris@access.k12.wv.us _____

Category for judging (please list only one): _____ Digital Government (G to G) _____

Person Nominating (if different than above): _____ Kathy Boone _____

Job Title: _____ Assistant Director, Office of Instructional Technology _____

Address: _____ 1900 Kanawha Blvd., East _____
_____ Building 6, Room 346 _____

City: _____ Charleston _____

State: _____ West Virginia _____ Zip: _____ 25305-0330 _____

Phone: _____ 304.558.3538 _____

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Email: _____ kboone@access.k12.wv.us _____

Please return nominations to:
2002 NASCIO Awards
167 West Main Street, Suite 600
Lexington, KY 40507
broszman@amrinc.net

2002 NASCIO Recognition Awards

West Virginia Department of Education: Office of Technology Brenda Morris, Coordinator

Data Integration for Effective Reporting And Efficient Fiscal Management

Digital Government: Government to Government

Executive Summary

The West Virginia Department of Education (WVDE), Office of Technology, has responsibility for a number of statewide technology programs for education. All of these programs are funded by the Legislature and, as such, require a high level of accountability both for reporting results and for fiscal management. The administration of these programs crosses several agencies within state government and county school systems. Until the implementation of the Office of Technology Database Management System, reporting options were constrained by the use of a number of technologies across agencies that, for the most part, did not effectively interact with each other. The result of this incompatibility was work that was redundant and repetitive in order to achieve results that could provide necessary information.

Brenda Morris, a coordinator in the Office of Technology, has worked effectively over the past four years to coordinate an effort that includes personnel from WVEIS (West Virginia Education Information System, an AS400 application), WV Division of Purchasing, WVDE and WV offices of Finance, and others, to bring the data that is needed together from multiple sources in a customized Microsoft Access database. The customized interface to the database allows the end user to input data and receive reports with minimal specific knowledge of the application. This has been achieved through Brenda's management of the creation of a tool specifically designed to meet the unique needs of the Office of Technology.

This Access data base provides a central location to store data from all projects in order to have records easily accessible to provide a large number of standardized reporting options about purchases made for county school systems and, additionally, to provide the option for the user to create customized reports as required to meet the demands of other agencies, which include other divisions of the WV Department of Education, the WV Legislature, other agencies in state government, county school boards, Regional Education Service Agencies (RESAs), the media and individual citizens who may make inquiry.

Given the increased emphasis on accountability in education, both at the state and federal levels, accurate data, which is readily available, is essential. Brenda has made a significant contribution to the effective and efficient management of data in the Office of Technology.

Justification

A) Description of the project

The West Virginia Department of Education, Office of Technology, manages several statewide technology initiatives. All of the programs are based on a successful model that was developed in the early 1990's when the Basic Skills/computer Education program began. In subsequent years, a number of other statewide initiatives either for other groups or for other goals were initiated. In each program a vendor partnership was created through the WV Division of Purchasing through a Chapter 5-A procurement. The vendor(s) provided what is now termed a "turn-key" approach to technology procurements for the acquisition of computers, cabling and staff development. The vendor cooperates with staff from the Office of Technology to provide consultation with county and school personnel to plan and implement technology for use in student instruction. Bringing this expertise to the county/school level met a need expressed at the county level for personnel with specific technology information that was not always available at the local level, particularly in smaller districts where personnel serve in multiple capacities.

According to the terms and conditions of this turn-key approach the model provides an "open-end contract for hardware, software and services to be used by WVDE, the Regional Educational Service Agencies (RESA's), County School Boards, individual schools governed by the State Department of Education, State colleges and universities, and WVNET (West Virginia Network for Educational Telecomputing)." As such, it allows other WVDE offices, counties and schools to benefit from the 'economy of scale' purchasing power of the contract and the negotiated terms of the contract.

While this solution provides a great benefit in terms of fiscal economy, data for decision-making, and standardization of technology across the state, the management of reports for historical data and projections was not always accomplished easily. In fact, it often involved finding information in multiple sources and then spending time compiling it to meet the needs of a particular agency. Since all purchases are made at the state level, the management of literally hundreds of purchases orders drawn against multiple accounts became a fiscal management issue as well.

Clearly, this was a problem that required a more sophisticated solution for both effective reporting and efficient fiscal management. As the Department of Education standardized on the Microsoft Office applications for productivity and communication, several members of the professional and support staff in the Office of Technology requested training in order to gain competence and to realize the full capacity of the Microsoft Office suite. It was at this point that the decision was made to create a database that could bring in information from multiple sources and provide a customized format for the end user. Brenda Morris became the owner of the database effort with primary responsibility for its design and implementation.

Under Brenda's direction, the database was designed in-house with capacity to provide the following functionality:

- A database that could capture data from all of the applications used by any of the agencies that interface with the Office of Technology
- A system with user rights to protect the integrity of the data from user error
- Easy-to-follow forms for data entry with a set of integrated error prompts to lead the user to self correct
- Single-screen purchase order processing that identifies the user and keeps an accurate record of such divergent information as the funding grant number, federal E-rate records, School Building Authority funding applied to the purchase order

- The automated printing of state forms needed to process purchase orders through the official signature process
- Ability for those with permission rights to review and amend data entries

The initial database was created in Access with consulting services purchased from Productivity Point International (now Information Services Group) of Charleston, WV. The consultant continued to be available on an “on-call” basis to answer questions and to add additional capacity as requested by the users.

The initial information came from WVEIS, the information management system for education in the state. Since counties enter information directly into WVEIS, that data provides the most accurate information for county and school names and addresses. This provided consistent naming and reduced redundancy in data entry.

Since all purchases are entered into a state purchasing software management program called TEAM, the contract items numbers and descriptions were entered there. A download of that information then provided historical data of purchases that could be queried by date or school or county or specific item. With this option, the need to review paper copies of purchase orders for decision-making was eliminated. Both state and county personnel could have access to the same level of data with ease.

Passage of the federal Telecommunications Technology Act in 1997 brought a new challenge for data management. The education discount for e-rate was specific not only to the school funded but also to particular items on the state contract. The database allowed users to efficiently check for accuracy before allowing the discount to be applied. Further the local education agency is required to maintain a list of the type of resources, including computers, training, software, maintenance and electrical connections necessary to make effective use of the services. The information from the WVDE is accurate for this purpose and can be presented in a format that is suitable for this type of reporting.

Federal accountability has increased with passage of the Enhancing Education Through Technology Act of 2001 (No Child Left Behind Act). The data is one important piece to demonstrate accountability. It provides the base description of the process, which leads to establishing accountability measures that the state educational agency will use to evaluate the extent to which activities funded under this subpart are effective in integrating technology into curricula and instruction.

B) Significance to the improvement of the operation of government

When productivity can increase without significant investment, then the savings is quite literal. Such is the improvement in operation that has resulted from the database development in the WVDE Office of Technology. The in-house database has resulted in significant improvement in our capacity to demonstrate accountability to the Legislature and to keep county technology coordinators apprised of the most current information regarding their technology accounts. Support personnel have been relieved of redundant data entry, which has freed them for more productive tasks and allows the creation of an office atmosphere that is generally more responsive to inquiry from our constituency and the public.

The database has allowed us to respond to changes in state or federal funding sources. A School Building Authority grant has given counties additional capacity for building technology infrastructure and the Office of Technology has been able to accurately apply that funding in conjunction with other appropriate funding without errors of ineligibility.

West Virginia is one of only three states that applied for federal e-rate funding on a statewide basis. Literally, millions of additional dollars for technology funding was obtained through this

efficient use of personnel time at the county and state level. The ability to generate the forms required by federal agencies and to document that funding was a tremendous gain.

C) Benefits realized by service recipients, taxpayers, agency or state

The state education system has focused on providing technology to schools as a priority and a significant investment of state dollars has been directed to that priority. To that end, it is particularly important that the Office of Technology has the capacity to be accountable to all stakeholders. That accountability does not leave a margin for data error.

A secondary benefit of this approach has been the opportunity for the Office of Technology to model the effective use of technology tools not only to the rest of the WV Department of Education but to county systems as well.

D) Return on investment, short-term/long-term payback

The return on this investment has been real in terms of both personnel time and improved accuracy. In the short term, planning and decision making has been raised to a more productive level both at the Office of Technology and at the county and school levels. The Office of Technology can reconcile account balances with the county, the vendor and the WVDE accounting office.

Standard reports are available to all users from buttons on the screen. Additionally, reporting in all of its iterations can now be customized to meet the specific request. A request from the RESAs gives a good illustration. Because that agency has prime responsibility for out-of-warranty computer repairs, the technical staff at each of the eight agencies needed a customized report on a quarterly basis of the numbers of machines for which they would have responsibility. Projections for staffing would be made on the basis of the reports. The option was added as a report that displays the number of computers grouped by school and reported separately to each RESA group.

In the long term, the Office of Technology continues to realize additional applications that are available from easily accessible and accurate data. For example, the system has been modified to send an automatic email message with the pertinent information about purchase orders to each county technology contact as the county's purchase order is completed.

No application that is this specific and customized to this level is available in a standard "off the shelf" software. The only solution is to create a tool that precisely meets the problem. Brenda Morris displays a high level of initiative and dedication in her management of the Office of Technology database application.

Attachment: Screen Capture of User Screen

BS/CE Register



Funding Source:
User:
Date:
registerID:

Type:
Vendor:

Log #:
County:

PO #:
Comment:

Account:
Hardware:
Software:
Services:
Other:
Credit:
Credit Type:

NOTE: When you enter an SBA amount, it will automatically be subtracted from the appropriate amounts above.

SBA Account:

SBA amounts for each school (enter as negative)

school	amount
▶	\$0.00

Schools Ready

FCC Authorized Amounts (enter as negative)

FccYear	school	FRN	amount	Remaining
▶				

FCC Subtotal:
GrandTotal Including FCC: