EXECUTIVE SUMMARY

Title: **1:1 Laptop Initiative Update**

Type of Executive Summary:
☐ Action ☐ Action on First Reading ☐ Discussion ☒ Information

Policy Implications:
☐ Constitution _____
☐ General Statute #_____
☐ SBE Policy #_____
☐ SBE Policy Amendment
☐ SBE Policy (New)
☐ APA #_____
☐ APA Amendment
☐ APA (New)
☐ Other _____

Presenter(s): Mr. Rob Hines (LEA Council Director)

Description:
The NC 1:1 Laptop Pilot initiative is a public-private partnership between the Golden Leaf Foundation, SAS Institute, New Schools Project, the Friday Institute, and the NC DPI that provides 21st Century resources to teachers and students at eight North Carolina high schools. The program goal is to increase student engagement by introducing technology in support of the educational approach selected by each school, to graduate students who are prepared for life in the 21st century, and to increase student achievement. The project is assessing effectiveness through a formal program evaluation that considers a variety of potential program effects including increased student achievement, student attendance, teacher retention, and improved instructional methods. Participating schools include Davidson Early College High School, Edgecombe Early College high School, Hunt High School, SandHoke Early College High School, Macon Early College High School, Nash-Rocky Mount Early College High School, Rutherford Early College High School and Wayne Early College High School.

Resources:
Resources include $3M appropriated by the NC General Assembly and managed by NCDPI, SAS Institute, and Golden LEAF funds, SAS Institute professional development resources, Friday Institute professional development, evealuation, and technical resources (for connectivity), and New Schools Project professional development resources and organization.

Input Process:

Stakeholders:
Students, Parents, and participating pilot schools and LEAs

Timeline For Action:
This item is being presented for information to the State Board of Education

Recommendations:
None

Audiovisual equipment requested for the presentation:

X Data Projector/Video (Videotape/DVD and/or Computer Data, Internet, Presentations-PowerPoint preferred)
Specify: Data Projector

☐ Audio Requirements (computer or other, except for PA system which is provided)
Specify: _____

☐ Document Camera (for transparencies or paper documents – white paper preferred)

Motion By: _____ Seconded By: _____

Vote: Yes _____ No _____ Abstain _____

Approved _____ Disapproved _____ Postponed _____ Revised _____

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*Person responsible for SBE agenda materials and SBE policy updates: Susan Auton, 807-3435

School Technology Pilot – NC 1:1 Update

Background

The NC 1:1 Laptop Pilot initiative is designed to provide 21st century resources to teachers and students at eight North Carolina high schools. The program goal is to increase student engagement by introducing technology to support the educational approach selected by each school, to graduate students who are prepared for life in the 21st century, and to increase student achievement. The project will assess effectiveness through formal program evaluation that considers a variety of potential program effects including increased student achievement, student attendance, teacher retention, and improved instructional methods.

Participating schools:

- Davidson Early College High School
- Edgecombe Early College High School
- Macon Early College High School
- Nash Rocky Mount Early College High School
- Rutherford Early College High School
- SandHoke Early College High School
- Wayne Early College High School
- Wilson County/Hunt High School

$3M in non-reverting funding for:

- Connectivity upgrades
- Hardware, software, other equipment
- Professional development
- Instructional and technical personnel ($130,000/site)
- External Evaluation ($100,000)

Structure and operations

- Steering Committee consists of staff from all partners as well as a principal and district technology director.
- Standing monthly team meetings on third Wednesday, plus weekly conference calls

Current Status

Laptops

- Distributed laptops to all teachers and students; minimally, students enjoyed several weeks to work with machines as part of classroom activities and most students also were taking machines home to work with them. Some students were able to use machines in class and at home for a large part of the spring semester.

Professional Development

- Completed initial teacher PD in mid-November.
    - Focused on currently available resources and integrating them into a 1:1 environment.
    - Received excellent feedback from teachers; principals confirmed anecdotally that teachers were happy with the PD.
- Completed principal PD 01/28/08.
    - Included a variety of topics: establishing a 1:1 vision/plan for each school, evaluation, lessons learned from previous adopters (including Greene County, Cary Academy, and Hunt High School), future PD offerings for teachers, computer security and support, accidental damage insurance, and policy information/guidance for 1:1 schools.
    - Included participation from all 8 pilots, plus Edgecombe and McDowell counties.
- Established a website with Friday Institute and other partners for the 1:1 Collaborative (http://www.fi.ncsu.edu/1to1/)
- Received initial PD recommendations developed from evaluation baseline visits. (Please see Attachment A.)
- Planned future professional development offerings, including on-line courses from SAS and the Friday Institute/EDC – a cost-effective method of providing training.
    - Developing contract
    - Exploring additional options for on-line and face-to-face training (ex: PBS Teacherline)
    - Offering additional available seats to other 1:1 districts such as Edgecombe, Greene, and McDowell.

Instructional and Technical Personnel

- Allotted personnel funds to schools in October ‘07; schools have hired instructional and technical support.
- Hired a full-time instructional director (New Schools Project).

Connectivity

- Completed preparations for schools to be operational; upgrading 3 schools (Edgecombe, Macon, Wayne) over the summer to be in an optimal state by the start of the fall semester; most schools are in good condition now and are able to support the program.

Classroom Tools/Instructional Technology

- Allotted funds for a variety of hardware and software tools to support the program. (Please see Attachment B)

Evaluation

- Conducted initial site visits to all schools for gathering baseline data.
- Initial report on baseline data and activity by August 30, 2008; may be advanced if there are particular recommendations that may be useful for schools to know about earlier.

Next Steps

- Support the NC 1:1 Collaborative, a Friday Institute initiative designed to support school districts engaged in or considering 1:1 initiatives.
- Finalize on-line course offerings and other PD offerings for this year; finalize delivery contracts.
- Complete connectivity upgrades.
- Support DPI, partners in providing information to Legislature for a possible second phase, including developing applications and selection criteria.
- Continue working with other districts as well as our pilots during their preparations for 1:1.

Attachment A

NC 1:1 Learning Initiative
Summary of Preliminary Identified Professional Development Needs
May 9, 2008

In April 2008, the Friday Institute evaluation team visited each of the eight participating high schools in the NC 1:1 Learning Initiative. The primary purpose of the visits was to collect data about early implementation of the laptop projects across the schools. The visits included a meeting and interview with the school's technology facilitator, a focus group or interview with all the classroom teachers, a leadership team focus group, and visit to classrooms to observe how laptops were currently being utilized for teaching and learning.

Common PD needs were identified and organized around a model which focuses on improving teacher practices in technology integration by addressing the intersection of three dynamic forces: content, process, and relationships. Preliminary analysis of the data collected from the visits - aggregated across all participating schools and including notes from the focus groups and interviews, as well as staff reflections - resulted in the suggestions below.

Professional Development Process Needs

Content-specific (math, science, social studies, and English/language arts):

- Introduce additional subject-area specific tools.
- Focus on integrating technology into specific content areas.
- Provide opportunities to plan and design learning environments and experiences for each content area.
- Provide development around project-based learning (PBL) with technology.

Hands-On:

- Provide time to incorporate useful curriculum content into the software, not just learning how to manipulate the software itself.
- Provide opportunities to visit a 1:1 classroom/school - see modeling of how a laptop can be used for teaching and learning in each content area.
- Explore new software.

Real-world application:

- Ask teachers to create real lesson plans using the technology.
- Provide time for translation of old materials/lessons to the new environment.
- Provide opportunities to plan and coordinate common (integrated)laptop units/lessons/projects.

Differentiated Instruction

- Provide different levels of instruction around use of technology to address teachers' various degrees of comfort and skill with technology.

Professional Development Relationship Building Needs

Interaction/collaboration among teachers and principals

- Meet and work with other teachers within subject areas to share best practices with the laptops in a given subject.

- Have teachers share ideas with each other about how they have used new software and other tools with the laptops

On-going support

- Create a professional network by subject area, allowing teachers to communicate with other 1:1 teachers in their subject area, share best practices, etc
- Provide more access to teachers in 1:1 schools that teach the same subject
- Share effective 1:1 lesson plans across 1:1 schools
- Repository of software so they know what is out there

Professional Development Content Needs

Digital Tools

- Hardware
    - Basic technologies skills using the laptop
    - Basic troubleshooting for 1:1 laptop environments
    - Using whiteboards with laptops
- Software – Vista, DyKnow, Geometer's Sketchpad, OneNote, Movie Maker, SAS in School, Curriculum Pathways
    - Go deeper into those programs we are already using
    - Review available software for different content areas
    - Compiled list of software and how and why it used
- Web-based - GoogleMaps, GoogleEarth
    - Web 2.0 Tools (blogging, wikis, podcasting, etc)
    - Course Management – Moodle, Blackboard
    - How to create a teacher/class webpage
    - Good content-specific, web-based resources

Authentic Assessment

- E-portfolios: How do we start gathering e-products so kids have picture of their HS education? How do we assess?

Policy

- Safe practices – copyright, cyber-bullying
- Hear from other schools about how they resolved laptop storage and carrying issues

Professional Development Needs Outliers (Unique but important needs identified at only 1-2 schools)

- Technology Facilitator training – e.g. adult learning skills, what is a TF?
- Principals need guidance and help in balancing all duties - EOC; 1:1 program; teaching; and other responsibilities at the school
- Classroom management
- Purpose of the project:
    - Worth/educational value of having 1:1 program
    - Reassuring teachers this is not just another trend
- Assistive technology needs in a 1:1 environment

Attachment B

NC 1:1 Learning Initiative
Summary of Allocations and Allotments by School as of May 21, 2008

Board District	School	Total Funding Allocation*	Allotments to Date	Allotment Purposes
5	Davidson Early College HS	$241,500	$162,800	Personnel, software, supplies, classroom equipment, batteries, server hardware, professional development
3	Edgecombe Early College HS	$243,000	$166,500	Personnel, software, supplies, classroom equipment, professional development, microphones, scientific probes, document cameras
3	James B. Hunt HS	$360,000	$243,300	Personnel, software, supplies, classroom equipment, filtering software, interactive whiteboards, professional development
8	Macon Early College HS	$238,300	$140,300	Personnel, software, supplies
3	Nash-Rocky Mount Early College HS	$250,000	$181,400	Personnel, software, supplies, wireless infrastructure
8	Rutherford Early College HS	$241,400	$214,900	Personnel, software, supplies, document cameras, interactive whiteboards, batteries, professional development
4	SandHoke Early College HS	$115,000	$173,500	Personnel, software, supplies, interactive whiteboards, projectors, server hardware
2	Wayne Early Middle College HS	$251,000	$145,000	Personnel, software, supplies

* Includes: $130,000 per school for personnel, plus a classroom tools and support allotment of $100,000 plus $100 per student for each school.