

EXECUTIVE SUMMARY

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EVIDENCE OF COMPLIANCE FCPS OPERATIONAL EXPECTATION MONITORING REPORT

PERIOD COVERED: Calendar Year 2007, except as noted.

Function: Information Technology

Operational Expectation: The Superintendent will use technology to support teaching, learning, and the Board's operational expectations and goals.

1. Provide a comprehensive and functional technology infrastructure.

Highlights –Evidence of Compliance:

- The FCPS Wide Area Network, including the infrastructure, equipment and circuits, was available 99.85% of the time in 2007, exceeding the target of 99%.
- In 2007, 98.76% of all incidents were responded to according to established service level agreements, exceeding the target of 95%.

2. Provide technology capabilities that are useful for staff members and students.

Highlights –Evidence of Compliance:

- FCPS currently has a students-to-standard computer ratio of 2.2 to 1, exceeding the target of 2.5 to 1. Limited funding for computer replacement will impact the ability to maintain this ratio in the future.
- In the 2007 IT survey, 91.4 % of teachers indicated that they utilized technology productivity tools every day in their jobs, and 90.7% of teachers responded that they used technology to support student learning daily or weekly, an increase over 2006.
- Based on feedback from the board during last year's technology monitoring report, new questions were asked regarding usefulness of technology. In response to these new questions, 97.7% of teachers indicated that the most useful tool is their teacher laptop, followed by 94.9% for presentation workstations, 91.9% for digital camera, 91.8% for computer lab, 91.7% for wireless mobile lab, and 91.5% for electronic interactive boards.
- Teachers provided invaluable feedback and input in 2007 on all major technology initiatives including eCART, FCPS 24-7 collaboration tools (Wiki's and Blogs), on-line SOL testing, On-line IEP system, SASI replacement, etc.
- A new capability has been developed in FCPS 24-7 to allow school administrators to more easily monitor the content and usage of their teachers' sites.
- In school year 2006-2007, the Online Campus offered 39 courses and served 759 students, an increase over the previous school year.

3. Use technology to support diverse learning techniques and styles.

Highlights –Evidence of Compliance:

- The number of students with disabilities receiving assistive technology services was 3,561 in FY07, an increase over the previous school year.
- Discovery Education *streaming* with over 40,000 video segments correlated and searchable by Virginia SOL's is now available to all schools and usage continues to grow.

4. Provide a means for interactive communication between the school system, parents, students, and the community.

Highlights –Evidence of Compliance:

- Enhancements were made to the FCPS 24-7 Learning portal with the addition of Wiki's and blogs.
- eCART is being piloted in 30 schools through FCPS 24-7, providing teachers and administrators access to approved curriculum, assessment and resources.
- All schools began providing individual parent accounts for FCPS 24-7 in the spring of 2007.
- Total e-mail messages sent and received in 2007 was 196,593,608, excluding spam.

5. Provide information electronically about school and division programs and academic progress.

Highlights –Evidence of Compliance:

- As of December 2007, 96,168 users were subscribed to the Keep In Touch communications service and 91 schools including Adult and Community Education (ACE) had customized KIT systems. Note that there are significant performance issues with the current KIT vendor and a RFP has been released to seek a new vendor, pending budget availability.
- In 2007, FCPS produced 671 individual public information and instructional video segments, as well as 131 full-length television programs, providing news and information about the schools, emergency messages and curriculum programming.
- In 2007, 10,033 Public Services Announcement spots (with a value of \$501,650) aired on over 40 cable channels, through our FCPS "smart" PSA campaign, a bold and creative effort that informs cable television viewers about FCPS efforts and initiatives.
- The FCPS public website, www.fcps.edu, was available 99.89% of the time, exceeding the target of 99%.
- Based on the school board's feedback on last year's technology monitoring report, a new indicator (5.f.) was added this year, tracking the timeliness of updating data on the online school profiles. This year 100% of the data was updated according to published schedules, exceeding the target of 85%.

6. Provide a system to access relevant and current data by appropriate users.

Highlights –Evidence of Compliance:

- The public utilization in 2007 of EDSL via the school profiles on www.fcps.edu was 10,476,996, an increase of 60.5% over the previous year.

Additional Highlight Not Specific to an Indicator –Evidence of Compliance:

- Last year the school board directed IT staff to analyze the student information system suite of products and recommend a course of action. As a result, staff presented a business case that concluded the current student information system, in use at FCPS over ten years, lacked the flexibility to meet evolving FCPS needs. The school board approved replacement of the current system through the competitive selection process. Staff then developed the requirements for a new system based on input from 36 focus groups covering the full range of stakeholders, including teachers, parents, and students. Staff released the request for proposal (RFP) to potential bidders in December 2007. Following a rigorous evaluation process, staff expects to recommend a contract award by the end of the current school year. A two-year phased implementation of the new student information system will begin following school board approval of the contract award.

Fairfax County School Board
Operational Expectation and Goal Monitoring Report

A = acceptable condition U = unacceptable condition

TECHNOLOGY

Period covered: Calendar Year 2007, except as noted

The Superintendent will use technology to support teaching, learning, and the Board's operational expectations and goals. The Superintendent will:

7. Provide a comprehensive and functional technology infrastructure.

Superintendent: A U
School Board: A U

Reasonable Interpretation:

A robust infrastructure is critical to the successful operation of the school division. The technology in the classroom no longer consists simply of stand-alone computers. Every classroom must be connected to the wide area network in order to access important instructional applications and on-line materials. The business functions of the school division rely on access to the internet and the FCPS intranet as well as the major systems located at the Wilton Woods network operations center.

There are two critical elements to ensuring a robust infrastructure. First, the wide area network must provide reliable access for all students and staff and must be available 24 hours a day, 7 days a week. Secondly, when a problem occurs, the support structure must be in place to ensure that incidents are responded to quickly and effectively.

Indicator 1.a.

The FCPS Wide Area Network (WAN) services, including the infrastructure, equipment and circuits, will be available 99 percent of the time, 24 hours per day, 7 days per week, 365 days per year.

Indicator 1.b.

95 percent of Technology Incidents will be responded to according to established Service Level Agreements (SLA's) outlined in the table below:

Priority Level	Respond By:	Close by:
Low – Planned	3 Business Days	30 Business Days
Medium – Routine	12 Business Hours	15 Business Days
High – Serious	6 Business Hours	3 Business Days
Critical – Emergency	2 Hours	24 Hours
Special – Emergency	2 Hours	8 Hours

The definitions of the priority levels are as follows:

Low/Planned - Events that are coordinated with the school/site to be done at a future defined time more than three weeks in advance.

Medium/Routine - Incidents that are failures which while inconvenient do not cause disruption for multiple users; users are able to perform the same work somewhere else at the location; is not FCPS mission critical (e.g. Individual workstation boots to blue screen, user cannot access mail, single computer cannot access internet).

High/Serious - Incidents that are failures, which may disrupt service for multiple rooms/offices/users at a site; normal work cannot be performed at another location at the site, applications and work affected may or may not be FCPS mission critical (e.g. one wiring closet down impacting a wing of the school, computer lab without network connectivity).

Critical/Emergency - Incidents that are failures which affect multiple users and/or multiple instructional applications at multiple sites; failure of a mission critical nature (e.g. one or more exchange servers are unavailable, county-wide virus outbreak, FCPS 24/7 down).

Special/Emergency - An incident where a single or multiple users are affected and it is mission critical (e.g. SASI user cannot access SASI during grading period, SOL testing interrupted by internet problems, School Board or LT member computer down and unable to complete critical time/sensitive function).

Superintendent Statement of Condition:

Indicator 1.a.

The Wide Area Network (WAN) is responsible for connecting all FCPS facilities to a backbone core so that FCPS users can utilize network and Internet resources. The health of such a network is vital to instructional as well as business functions of the organization. FCPS provides WAN services to 234 locations across Fairfax County. The service, Transparent LAN Services (TLS), is being provided by Verizon, which in turn also provides monitoring and maintenance services. All middle and high/secondary schools are provided with 100 Mb links while elementary school locations are provided with 10 Mb links. The need continues for more reliable bandwidth as we see the increase demand for web resources, including on-line applications, to be used primarily for instruction. Examples of such applications are SOL on-line testing, United Streaming and Blackboard.

To provide availability measurements, IT uses a monitoring and reporting tool called Nagios. Nagios is an open source network monitoring program that was put into service in June 2006 to assist IT with the daily monitoring and maintenance of the WAN. To measure FCPS WAN availability, the international standard, Information Technology Infrastructure Library (ITIL) availability measurement is employed which is calculated as follows:

$$(Agreed\ service\ time - Downtime) / (Agreed\ service\ time) \times 100$$

As part of the School Board system measurements, IT has been tasked with providing availability measurements for two critical services: public web service and WAN service availability. The minimum annual accepted availability measurement for both services is 99.0%.

WAN services refer to the infrastructure and equipment that comprise the Wide Area Networks in FCPS. This figure is an average of all WAN circuits connecting schools and administrative offices to the wide area network.

Based upon these calculations and infrastructure/system precautions in place, an overall annual (24/7/365) availability measurement of 99.85% uptime for this service was obtained between January 1, 2007 and December 31, 2007.

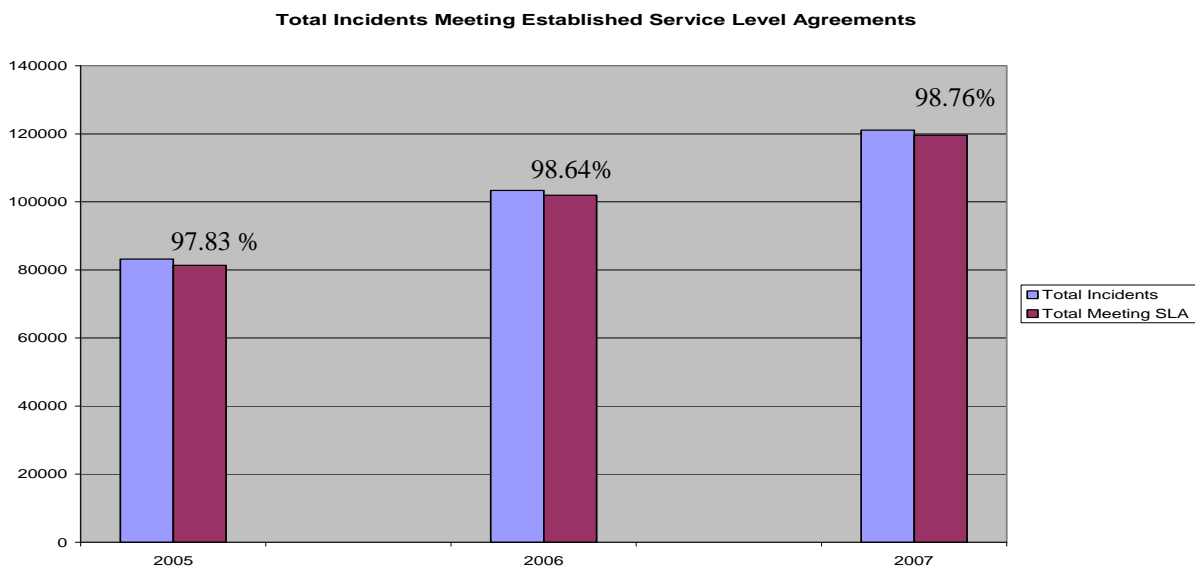
Indicator 1.b.

FCPS Information Technology has aligned its technology support model with industry standard best practices identified in ITIL which includes the development of repeatable, documented and measurable processes to maximize efficiencies and improve customer service. The technology support model is based on a collaborative and integrated team approach, including school based technology personnel as well as central office IT support partners. These teams provide focused, direct technology support to every school, center, and administrative office in FCPS to ensure the technology is up and running and available when and where it is needed. When the technology is not working or available as expected, these teams work together for prompt resolution according to established Service Level Agreements (SLAs).

These formal agreements define how support entities interact with one another and how timely support is provided to customers. They include escalation procedures that are followed when response and resolution times exceed expectations.

All technology support incidents are managed and tracked in a comprehensive incident management system from initiation through resolution according to agreed-upon business rules and service level agreements. The chart below shows the total number of incidents and the number/percentage of technology incidents that met established SLAs since 2005. In 2007, 98.76% of all incidents were responded to according to established service level agreements.

Note: In 2008, Information Technology will upgrade its incident management system to a comprehensive ITIL compliant service management system. This upgrade will allow all IT service delivery and service support activities to be managed within the central application and will provide end-users self-service capability to report incidents and to request services on-line.



Board Comments:

February 11, 2008
Technology

8. Provide technology capabilities that are useful for staff members and students.

Superintendent: A U
School Board: A U

Reasonable Interpretation:

Technology is integrated into the curriculum at all levels, K-12, as well as across all subject areas. FCPS must ensure that computers are available in sufficient numbers, and those computers must be relatively current, in order to be useful to students. Aging computers have a higher incidence of breaking down, and often cannot run the latest instructional software applications.

Software applications are also vital to students and teachers in the instructional program. Usefulness of applications can be measured by usage statistics and teacher survey information. In addition, FCPS Online Campus, provided through FCPS 24/7, uses technology to expand the boundaries of space and time. Online courses are identical in content to those offered in the traditional classroom and provide students additional useful opportunities for learning.

Indicator 2.a.

FCPS will maintain a student to standard computer (5 years old or newer) ratio of at least 2.5 to 1.

Indicator 2.b.

FCPS will report on how frequently teachers report using technology productivity tools and how frequently teachers report using technology to support student learning based on an annual survey. Focus groups will also be utilized to seek input from teachers on the usefulness of technology.

Indicator 2.c.

FCPS will report on number of courses offered through the FCPS Online Campus and the number of students enrolled annually.

Superintendent Statement of Condition:

Indicator 2.a.

FCPS has a computer inventory of more than 96,000 desktop and laptop computers. These computers are classified as standard (five years or newer), limited (six to ten years old) and legacy (more than 10 years old).

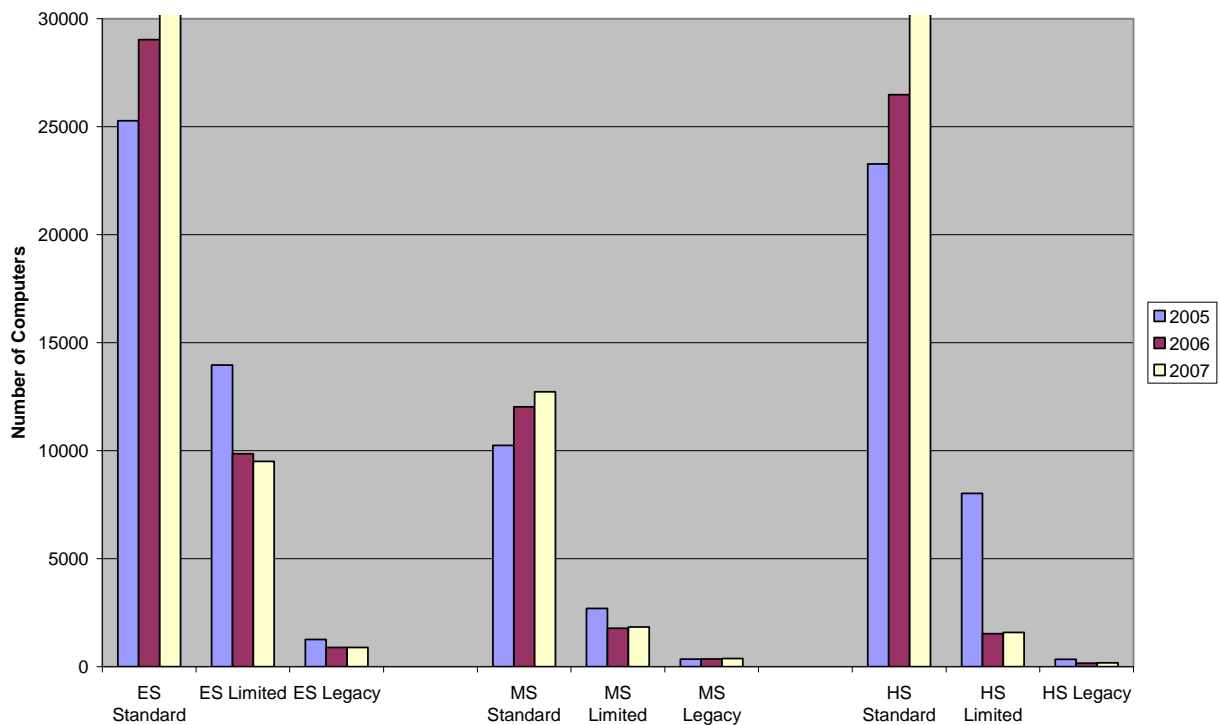
FCPS has created a process of maintaining an accurate computer hardware inventory that is used to support a systematic computer replacement program. Funding for computer replacements is used to replace computers in the legacy and limited categories with the goal of a five year refreshment cycle and all computers in the standard category. This would ensure that all computers have the ability to deliver current instructional and administrative software in a secured operating environment.

While at this point it is cost prohibitive to establish and maintain the desired five-year life cycle, the following charts illustrate the progress FCPS has made towards increasing the number of standard computers available to FCPS students and teachers. Eighty-four percent of FCPS computers now fall into the standard computer category. FCPS meets indicator 2.a. in 2007 with a student to standard computer ratio of 2.2 to 1.

A large number of computers in the standard category will move to the limited category within the next two years resulting in a significant drop in the percentage of standard computers. As a result, it is unlikely that FCPS will be able to continue to meet this indicator in the coming years without an increase in new computer and/or computer replacement funding.

See Appendix A for a school-by-school computer inventory breakdown.

Computer Inventory by Category

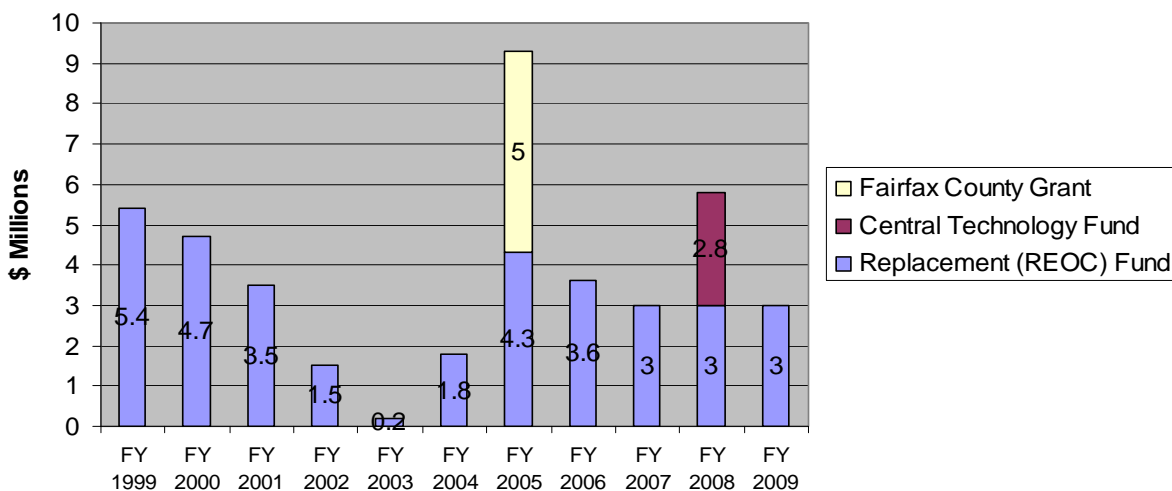


Student to Standard Computer Ratio			
2005	Standard Computers	Students	Ratio
Elementary	25266	84811	3.4
Middle	10292	24887	2.4
High	23120	51995	2.2
Total	58678	161693	2.8
2006			
Elementary	28731	84364	2.9
Middle	12133	25995	2.1
High	26935	52247	1.9
Total	67799	162606	2.4
2007			
Elementary	30437	86017	2.8
Middle	12725	26152	2.1
High	31824	52183	1.6
Total	74986	164352	2.2

Computer Replacement Funding

Replacement computer funding has varied widely over the past 10 years as shown in the following chart. The chart includes funding from three sources, FCPS Replacement Equipment (REOC) Fund, a one time grant from Fairfax County in FY 2005, and the newly created Central Technology Fund. In FY 2007 the School Board approved a plan to create a Central Technology Fund from a small percentage of the equipment allocation allotted to schools undergoing renovation. The goal is to bring as many schools as possible up to minimum standards for computers and data projectors, in an equitable manner. Approximately \$1.8 M will be available again from the Central Technology Fund in FY 2010. The computer replacement funding in FY09 and beyond will limit the ability of FCPS to maintain a 2.5 to 1 student to standard computer ratio.

Computer Replacement Funding



Note: Sustained annual funding of \$23 million would be required to maintain a five year refreshment cycle of all FCPS computers. In FY 2008, six million dollars was allocated leaving an unfunded balance of \$17 million. In FY 2009, the proposed budget estimate for computer replacement is \$3 million leaving an unfunded balance of \$20 million.

Indicator 2.b.

In order to ensure that technology is useful and adding value to the overall goals of FCPS, IT regularly solicits feedback and information from teachers at various stages during the planning and implementation of major technology initiatives. User advisory focus groups are often formed during the early stages of planning a technology initiative. This year the SASI Replacement Project was initiated and over 35 focus groups were conducted to gather requirements for a new student information system. Teachers from all levels and specialty areas were included in these groups. The result was over 1,500 requirements defining the desired functional and technical features for a new student information system. A User Advisory Group with representatives from across the enterprise was also formed and will guide the core project team through the life of the project. User advisory and focus groups help define requirements, policy and procedures, and ensure that the end user perspective is incorporated into the design and development of critical technology initiatives for the schools.

During the pilot stage of a technology implementation, the users of the system are surveyed through focus groups and other means to obtain their input on the features, functionality and usefulness of the system allowing for adjustments to be made as necessary prior to full implementation. During the past year, users provided invaluable feedback on eCART, Desktop Encryption, IT Service Catalog, FCPS 24/7 Collaboration Tools (Wiki's and Blogs), On-line SOL testing, On-line IEP, WebSense, Classxp for elementary schools and eFits during the pilot stage of these technology initiatives.

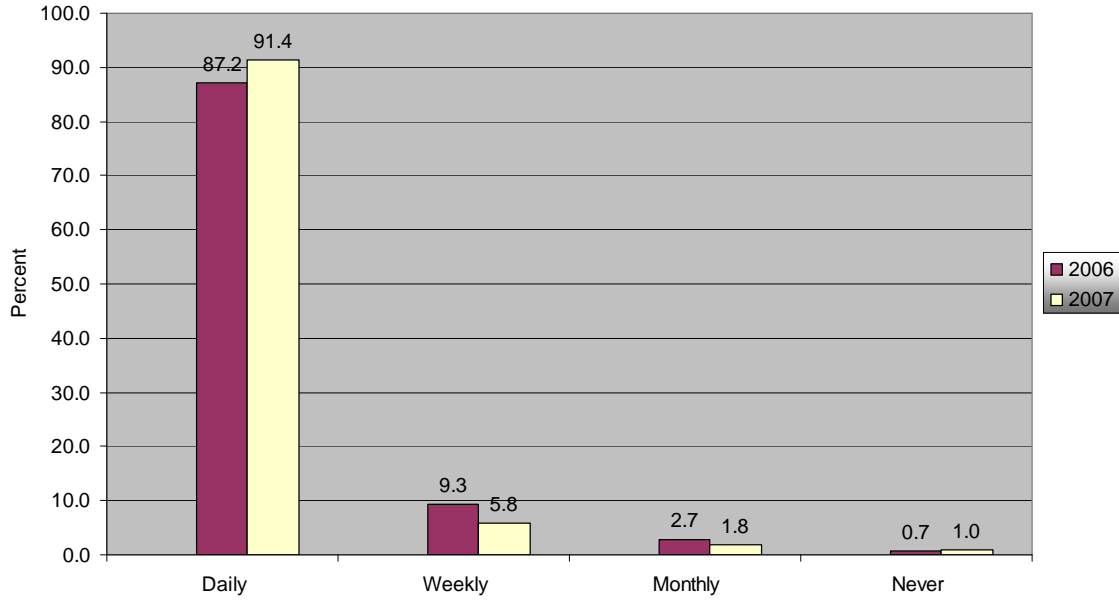
Teachers are also surveyed annually on their use of technology. In FY07, Information Technology surveyed all general education and special education classroom teachers as well as teacher aids on their use of technology to support teaching and learning. The charts below show that of the 1,948 teachers that responded to the 2007 survey, 91.4 percent indicated that they utilized technology productivity tools every day in their jobs. In addition, 90.7 percent of those responding said they used technology to support student learning on a weekly basis and 68 percent indicated they used it daily in support of student learning. Both figures represent an increase in usage from last year and indicate teachers' growing reliance on technology in the classroom.

Teachers were also surveyed on the usefulness of specific technology tools for teaching and learning. 97.7 percent of teachers indicated the most useful tool is the teacher laptop, followed by a classroom presentation station and classroom computers for students. More than 91 percent of teachers feel wireless mobile laptop labs, computer labs and interactive whiteboards are useful tools for teaching and learning.

Additionally, 89 percent of the teachers surveyed indicated that the personal productivity and instructional technology tools provided to them meet their needs. These percentages and the charts below show that teachers overwhelmingly embrace technology as a tool for teaching and learning in FCPS.

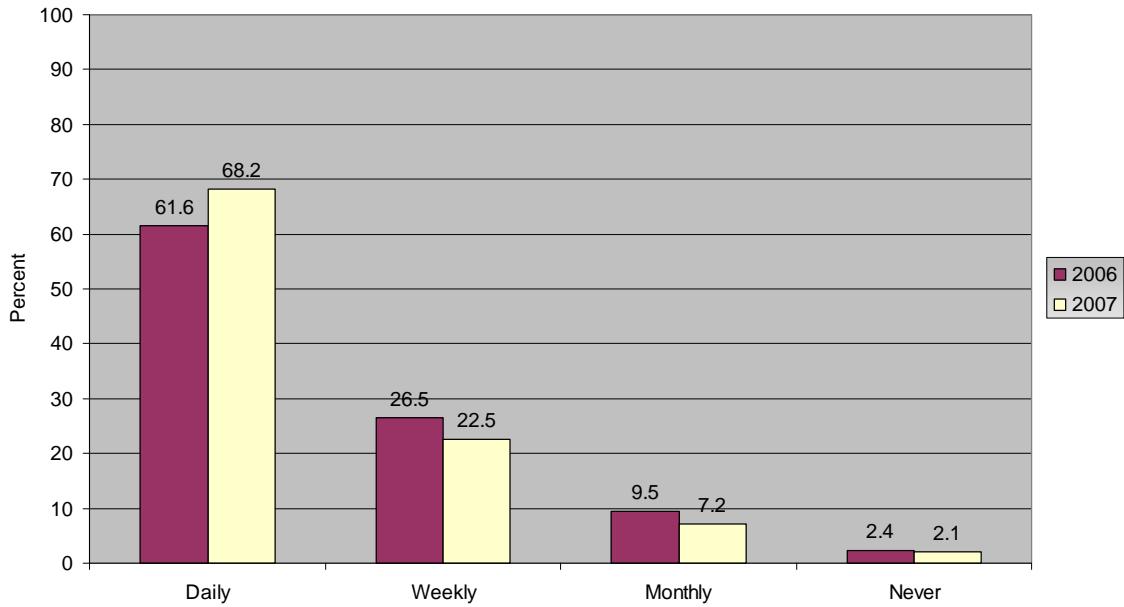
Use of Classroom Technology

How frequently do you use technology productivity tools?

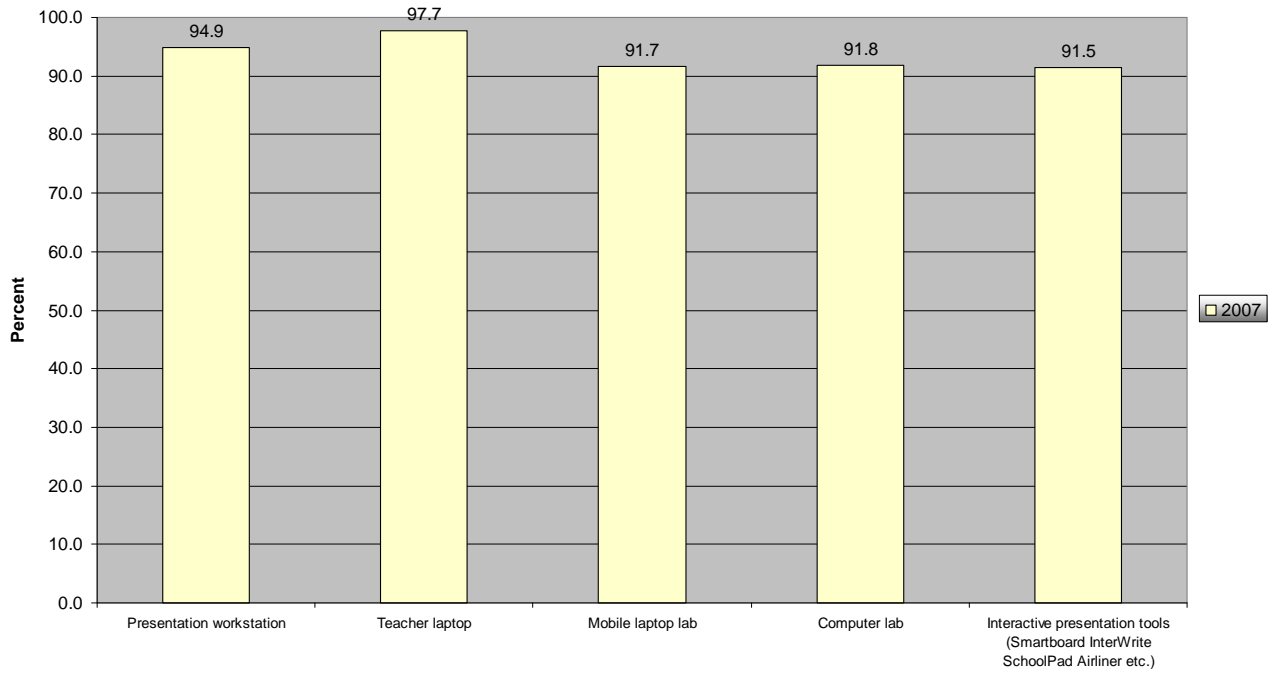


Use of Classroom Technology

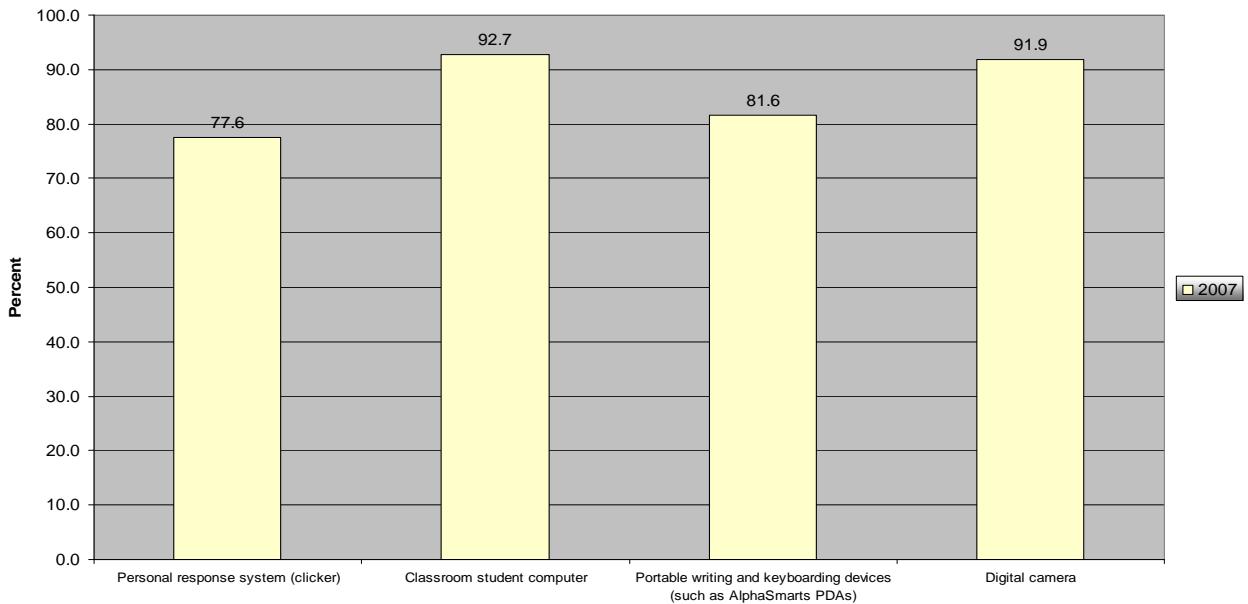
How frequently do you use technology to support student learning?



Use of Classroom Technology
 (%Strongly Agree + Agree)
 These tools are useful in my classroom for teaching and learning.



Use of Classroom Technology
 (%Strongly Agree + Agree)
 These tools are useful in my classroom for teaching and learning.



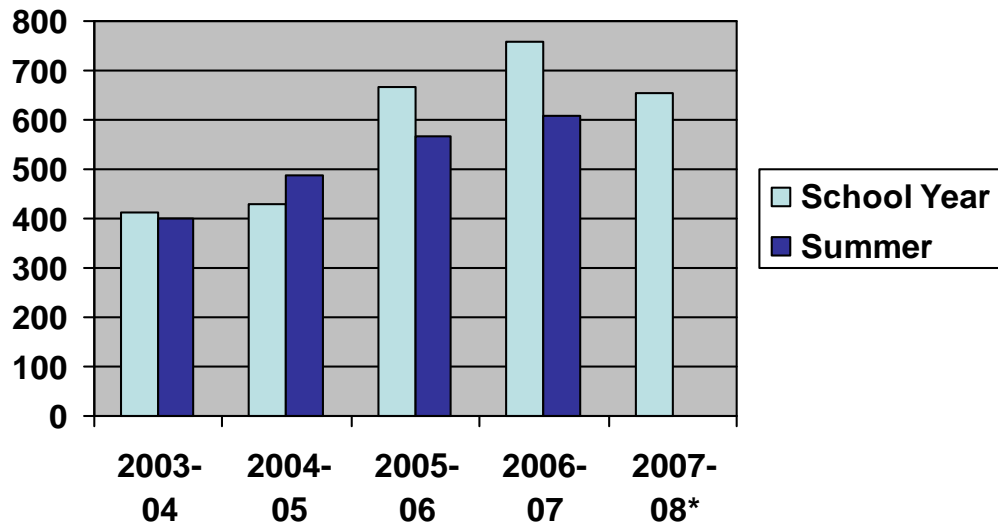
Indicator 2.c.

The FCPS Online Campus provides high school courses through the Internet. These courses are built to teach the same curriculum available in regular face-to-face courses. The Online Campus addresses the needs and characteristics of a number of student groups including traditional high school students, AP students, special education high school and middle school including autistic students, English for speakers of other languages, alternative education, homebound, home schooled, transfer students, out-of-system students including students in foreign countries, and pregnant students.

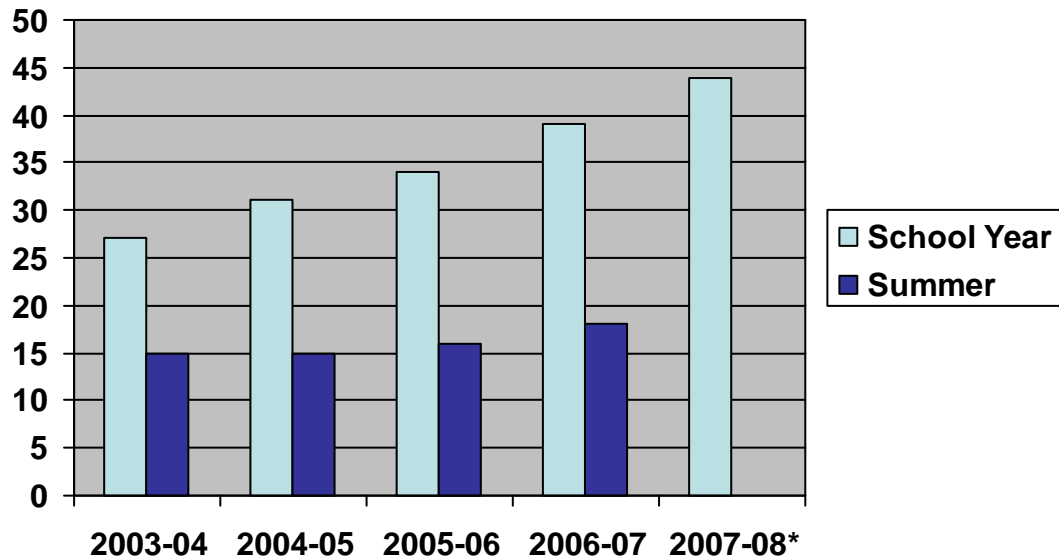
In school year 2006-2007, the Online Campus offered 39 courses and served 759 students. In summer school 2007, the Online Campus offered 18 courses with 608 students enrolled. Student enrollment continues to grow each school year. This school year as of December, 2007, the Online Campus has served 656 students in the following 44 courses:

<u>English</u> Creative Writing English 9 English 10 English 11 English 12 AP English Language Composition AP English Literature Composition	<u>Mathematics</u> Algebra I Algebra II Geometry Geometry Honors Trigonometry AP Calculus AB AP Statistics
<u>Foreign Language</u> AP French Language AP French Literature Spanish I Spanish 2 AP Spanish Language	<u>Science</u> Biology I AP Biology Chemistry I AP Chemistry Geosystems Oceanography Physics I AP Physics B
<u>Health and Physical Education</u> Health and PE 9 Health and PE10	<u>Career & Technical Education</u> Advanced Accounting Aerospace Science 1 Database Design and Management 1 Life Planning Cisco Network Administration
<u>Social Studies</u> AP Macroeconomics AP Microeconomics AP Psychology AP US Government & Politics AP US History Virginia and US Government Virginia and United States History World History and Geography I World History and Geography II	

On-Line Campus - # Students Served



On-Line Campus - # Courses Offered



* School Year as of December, 2007.

Board Comments:

9. Use technology to support diverse learning techniques and styles.

Superintendent: A U
School Board: A U

Reasonable Interpretation:

FCPS must provide technology for students with disabilities that will allow them to participate in the education process. Assistive technology can allow many students with disabilities the capacity to participate in an inclusive environment in the general education setting. For students with more severe disabilities, assistive devices can allow them to communicate with their teachers, other students, family and friends which would be impossible without the technology.

For the general education students, offering multimedia technology capabilities benefits students with diverse learning styles. In today's world where multimedia and visual stimulations are pervasive, many students benefit in their learning when video segments can be appropriately integrated into the instructional day. Video streaming capabilities, tied to the FCPS Program of Studies and Virginia Standards of Learning provides the visual learner with reinforcement of essential learning concepts.

Indicator 3.a.

FCPS will provide and maintain targeted and appropriate assistive technology (e.g. augmentative communication devices, adaptive access peripherals and software) to 100 percent of students with disabilities who are determined to require assistive technology support through the annual IEP process.

Indicator 3.b.

FCPS will provide to all schools a multimedia on-demand video streaming instructional tool, supporting diverse learning techniques and styles, and will report on the usage of this tool.

Superintendent Statement of Condition:

Indicator 3.a.

Fairfax County Public Schools is a national leader in the integration of assistive technology for students with disabilities. This service includes a comprehensive assessment component to determine which specific hardware, software, and/or adaptations a student might require. For example, a student who is non-verbal might require an augmentative and alternative communication device to effectively enable participation in all aspects of school curriculum and life.

The number of students with disabilities receiving assistive technology services over the last three years has grown from 2910 in 2004/2005 school year to 3,321 in 2005/2006 school year to 3,561 in the 2006/2007 school year. During this time 100 percent of the students with disabilities determined to require assistive technology as identified in their IEPs received the services. To date in 2007/2008 school year, there are 3,204 students with disabilities requiring assistive technology services according to their IEP plus an

additional 134 students who are served under a 504 plan. As many as 800 new students are referred for an assessment each year, so it is projected that final number of students receiving AT services will increase during the year. See appendix A for a school by school accounting of the number of students with disabilities who receive assistive technology services.

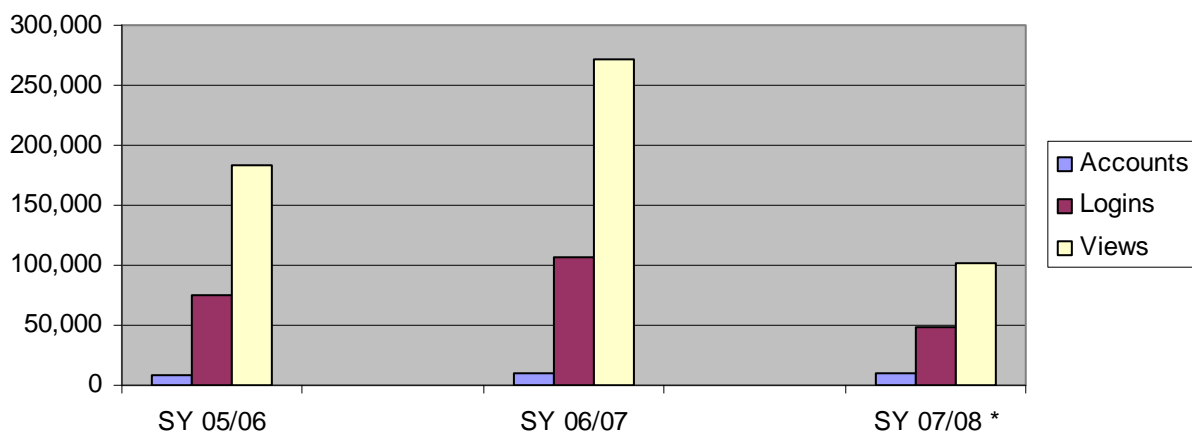
Indicator 3.b.

FCPS provides **Discovery Education streaming** (formerly called *Unitedstreaming*), a subscription-based Internet-delivered video streaming instructional application offered through Discovery Education, to all schools. Discovery Education *streaming* offers streamed video clips of education programs (over 4,000 full-length streamed videos, edited into 40,000 titled segments) correlated to and searchable by Virginia SOL. The site also contains additional learning resources including teacher guides, writing prompts, and a library of over 3,000 images.

Discovery Education *streaming* allows instructors to present educational information in a variety of formats to accommodate different learning styles. Segments can be hyperlinked into PowerPoint presentations; saved to a CD for viewing off-line; many are closed-captioned, which is particularly helpful to teachers of special student populations; and the visual nature of the clips works well with all student populations to reinforce spoken concepts in class.

Discovery Education *streaming* was piloted at 28 sites during the 04/05 school year and extended to all sites the following school year. This instructional tool was rapidly adopted by schools and teachers and utilization continues to grow. See Appendix A for school-by-school Discovery Education *streaming* Usage information.

Discovery Education Streaming Statistics



* School Year as of December, 2007.

Board Comments:

4. Provide a means for interactive communication between the school system, parents, students, and the community.

Superintendent: A U
School Board: A U

Reasonable Interpretation:

It is important that parents, teachers and students have strong communications ties to ensure the best academic success for our students. Communications links must be available 24 hours a day, 7 days a week. FCPS provides a valuable resource tool to foster communication with our FCPS 24/7 Learning system. The FCPS 24/7 learning system provides the capability to post homework assignments, participate in secure discussion boards, share on-line instructional resources, post announcements, share calendar information on upcoming events, and much more. FCPS should continue to encourage active use of this powerful communication tool by all schools.

In addition, electronic mail is a critical tool for interactive communication between the school system and the community. All employees regardless of position, must have e-mail capabilities.

Indicator 4.a.

FCPS will report on utilization of FCPS 24-7 learning, by school, supporting interactive communication between students, parents, and teachers.

Indicator 4.b.

FCPS will report on monthly utilization of total email traffic, including the counts for both internal and external messages.

Superintendent Statement of Condition:

Indicator 4.a.

There are currently over 23,000 FCPS 24-7 K-12 classroom sites being used by more than 14,000 teachers. More than 145,000 students and their parents are accessing these sites. FCPS 24-7 Learning continues to be the predominant internet destination from within the FCPS network. Internet traffic to FCPS 24-7 Learning generates over 4,000 hits per minute. Teachers and students upload the equivalent of 30 yards of books to the site each day. Overall, web traffic to FCPS 24-7 Learning has doubled since fall of 2006.

Providing new advanced communications tools, such as Wiki's and blogs, has contributed significantly to the instructional use of 24-7. Collectively, the use of Wiki's, blogs, and discussion boards, all identified as indicators of advanced use of online environments, make up approximately 2 1/2 % of the total activity within FCPS 24-7. There are, on average, over 1000 discussion board postings each day.

All schools began providing individual parent accounts for FCPS 24-7 Learning during the spring of 2007. Significant adoption occurred during the fall of 2007. Currently, more than 40,000 K-12 students' classroom sites are available to over 28,000 parent accounts. Parents have logged into FCPS 24-7 Learning more than 760,000 times this year. Additionally, through the posting by many teachers of email address and other

contact information, parents may correspond directly with teachers from within their online “classrooms.”

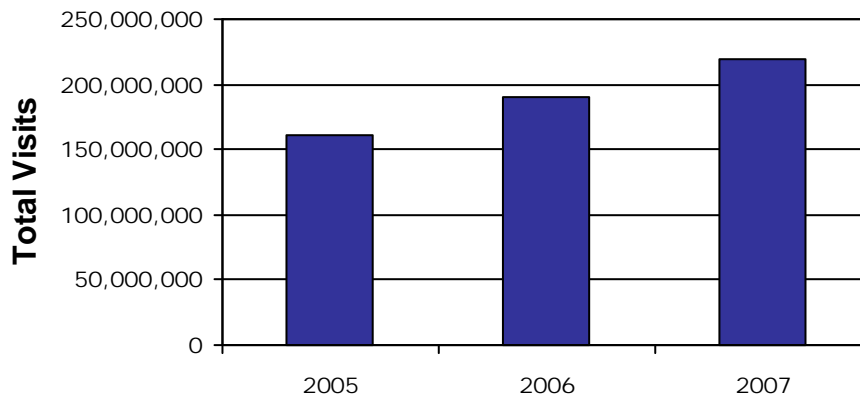
Parent accounts support providing additional functionality specific to parent needs. For example, parent accounts enable direct access to the weCare@school capability to review and update students’ emergency data online. At the end of December 2007, more than 4900 update requests had been processed online from within 24-7 Learning. The very popular Family Connection counseling application to assist with college planning and applications, actively used by more than 50% of high school students, is also accessed from within FCPS 24-7 Learning. Access to this tool will be expanded to include parents in the spring of 2008 and will include communication enhancements to support counselor communication with both students and their parents.

This fall, 30 schools piloted eCART (the Electronic Curriculum Assessment Resource Tool). eCART provides teachers and administrators access to approved curriculum, assessments, and resources that support K-12 teaching and learning using FCPS 24-7 Learning. This fall, 40,182 students performed 105,636 assessments using eCART as part of the pilot program. Feedback from the schools has been very positive. eCART will be deployed to all schools beginning in the fall 2008. eCART capitalizes on the existing capabilities provided by FCPS 24-7 Learning, the Northrop Grumman ASPIRE assessment application, and the FCPS-developed Curriculum Repository and Education Decision Support Library (EDSL). eCART delivers on the business case that staff presented to the school board for a formative assessment solution.

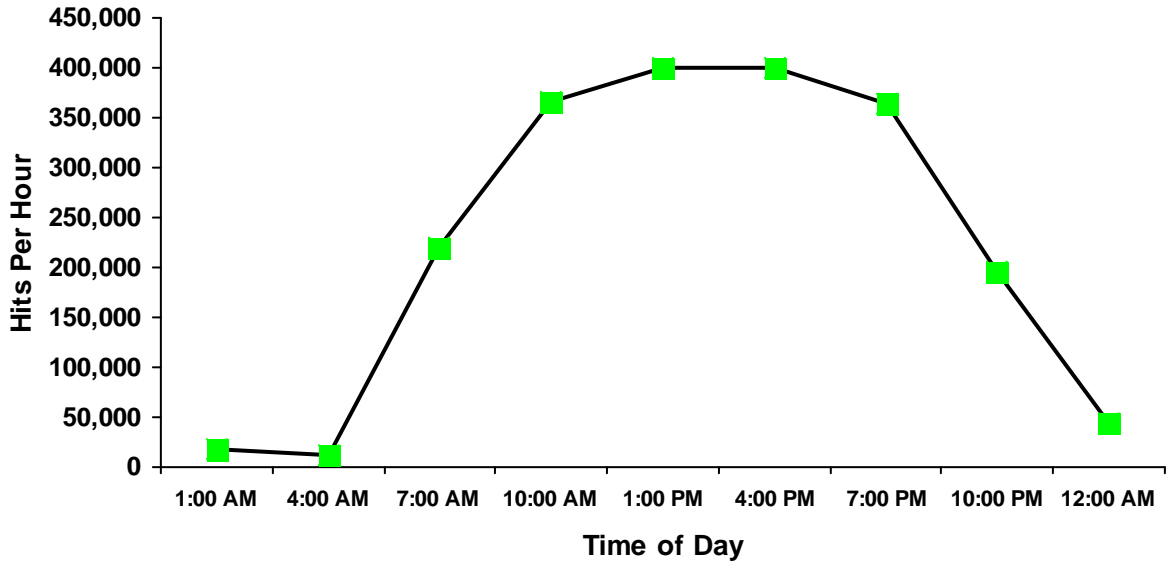
Additionally, in 2008 Principals and other school leaders will have access to a new ‘School Administrator’ view that provides the ability to search for and select any FCPS 24-7 course within their school. They can easily drill down to a specific course to review content and monitor usage. This functionality is currently being piloted with sixteen schools with plans to expand division-wide in 2008.

The following charts provide information on the FCPS 24-7 usage for the past three years. See Appendix A for school-by-school details on the number of FCPS 24-7 visits-to-student ratio and parent account adoption data.

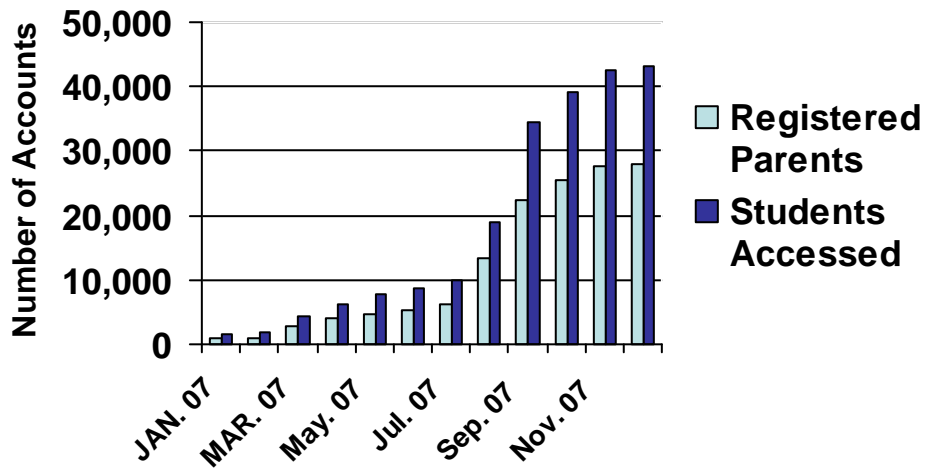
FCPS 24-7 Usage Trends



FCPS 24-7 Average Daily Activity



FCPS 24-7 Parent Accounts



Indicator 4.b.

The proliferation and reliance upon e-mail in the world marketplace in the last five years is remarkable. For FCPS, a robust and reliable e-mail system enables and eases communications between users – both internal and external to the system. Increased e-mail usage can be attributed to a number of factors. One primary reason is the need for teachers to effectively and efficiently communicate with parents on student's progress and performance.

The FCPS e-mail system is comprised of mailbox servers, a Storage Area Network (SAN) used for storage of mailbox contents, and an enterprise class tape library used to provide backup capabilities and long term data storage. The e-mail system, which holds over 43,000 user and resource mailboxes, runs Microsoft Exchange 2003 and is one of the largest implementations of Microsoft Exchange on the East Coast.

To provide e-mail traffic reporting, IT utilizes a reporting tool for Exchange called Promodag. Exchange Administrators run monthly reports on e-mail usage, as well as other key indicators such as a spam activity, to monitor and, if necessary, make system adjustments and enhancements.

Total e-mail messages sent and received from January 1, 2007 to December 31, 2007 was 196,593,608.

Exchange Totals				
		Total Internal Messages (internal FCPS)	Total External Messages (inbound & outbound excluding blocked spam)	Total Enterprise Messages
Jan	2007	14,583,730	4,361,860	18,945,590
Feb	2007	12,476,190	4,000,810	16,477,000
March	2007	15,325,120	4,837,390	20,162,510
April	2007	12,698,290	4,201,870	16,900,160
May	2007	14,660,922	4,561,400	19,222,322
June	2007	10,975,840	3,611,760	14,587,600
July	2007	4,512,040	2,717,697	7,229,737
August	2007	8,514,770	3,361,399	11,876,169
September	2007	15,418,100	4,231,550	19,649,650
October	2007	18,702,390	5,611,960	24,314,350
November	2007	11,709,170	3,022,780	14,731,950
December	2007	9,336,490	3,160,080	12,496,570
2007 Exchange Totals		148,913,052	47,680,556	196,593,608

Board Comments:

5. Provide information electronically about school and division programs and academic progress.

Superintendent: A U
School Board: A U

Reasonable Interpretation:

Parents, students and community members need access to information about FCPS. With a diverse community, it is important that FCPS provide information electronically through multiple venues and in multiple languages. Many constituents prefer to receive information via e-mail. Others wish to access information via a rich internet presence. While others, especially those who may not have easy access to the internet, benefit from information via television. FCPS must provide a variety of technology tools to facilitate sharing of information electronically about school and division programs and academic progress. Please note that there is a corresponding goal in the community relations operational goals which addresses effective communications.

School Profiles available on the FCPS public website provide valuable information on programs and academic progress. (See also indicator 6.a.) In addition to providing school and division-wide information about FCPS programs and academic progress, technology is also critical to providing parents with academic progress of individual students. Secondary teachers utilize an electronic gradebook, IGPro, which is integrated with SASI to provide academic progress information to parents and students.

Indicator 5.a.

FCPS will provide the Keep In Touch System for broadcasting electronic messages to parents and community members and will report on the number of subscribers, the number of schools with local customized Keep In Touch Systems, and the number of messages broadcast annually.

Indicator 5.b.

FCPS will provide public information and instructional television programming, and will report on the number of *SchoolScene*, *InSight*, and *In Other Words* programs to provide news and information about the schools, emergency messages and curriculum programming produced and aired annually on Channel 21.

Indicator 5.c.

FCPS will report on the number of times FCPS Public Service Announcements air by cable providers annually.

Indicator 5.d.

The FCPS Public Website www.fcps.edu will be available 99 percent of the time, 24 hours per day, 7 days per week, 365 days per year.

Indicator 5.e.

FCPS will report on the number of secondary teachers who use IGPro electronic gradebooks to provide student academic progress.

Indicator 5.f.

The online school public profiles will be updated according to the established service levels outlined below at least 85% of the time. The 85% takes into account publishing delays caused by circumstances outside of FCPS control (e.g. problems with external sources of data such as file redesigns, data quality). Timeframes for updating the data will be published on the school public profiles website.

Superintendent Statement of Condition:**Indicator 5.a.**

FCPS implemented its Keep In Touch (KIT) communication system in 2002 as a means to provide timely, effective and targeted communication with the FCPS community. The Keep in Touch system is a self-subscribe system designed for those registered to receive FCPS information that is important to them via email. Over the past several years, school-based employees have been trained to implement a local version of the Keep In Touch system allowing them to send customized messages from their school, tailored to their specific school community. As of December 2007, 96,168 users were subscribed to the service and 91 schools including Adult and Community Education (ACE) had customized KIT systems.

Note: Recently, the service provider for KIT has not met FCPS needs for timely and accurate delivery of e-mail notifications -- in some cases taking many hours to deliver messages as well as delivering duplicate messages. The service provider is not able to resolve these problems. As a result, staff released a request for proposal (RFP) in November to seek a replacement service. Staff members are currently evaluating proposals. Although no selection has yet been made, recent awards at other school districts indicate that the annual costs for a replacement service could be much higher than budgeted for the current service. Though staff will negotiate favorable terms and seek a phased-in solution, it is likely that additional funds will be required in order to maintain this vital communication service for the community.

	2002	2003	2004	2005	2006	2007
Number of Subscribers	22,476	51,072	63,369	78,901	81,693	96,168
Number of Schools with Local Customized KIT Systems *	0	2	17	35	82	91*
Number of Messages Broadcast	772,853	6,238,860	8,777,575	10,978,117	12,066,865	14,961,189

*See Appendix A for a listing of schools with local customized Keep In Touch systems.

Indicator 5.b.

In calendar year 2007, FCPS produced 671 individual public information and instructional video segments, as well as 131 full-length television programs. The total includes programs that provided news and information, such as:

- Live coverage of FCPS School Board meetings – 33 meetings
- *SchoolScene* - 22 half-hour programs
- *Top Priority* – 8 half-hour programs
- *Solving the Puzzle* – 9 half-hour programs
- *Insight* – 21 half-hour programs
- *In Other Words* - 15 half-hour programs (three programs each in Arabic, Farsi, Korean, Spanish and Vietnamese)

Also included in the total are curriculum-based programs and segments, such as:

- *Meet the Author* – 6 half-hour programs
- Mount Vernon series – 3 programs (*The Real George Washington, Slavery at Mount Vernon, Seed to Table*)
- *Flight School* series – 2 programs (*Inspired to Fly, Higher, Faster, Farther!*)
- Online Chinese I and II – 313 produced segments

In addition to these production totals, videostreaming support was provided through the encoding of approximately 556 pieces of video in support of public information, instruction and staff development.

Indicator 5.c.

The FCPS "smart" PSA campaign is a bold and creative effort that informs cable television viewers about FCPS efforts and initiatives through public service announcements (PSAs.) The "smart" campaign addresses many critical issues facing children, families, schools, businesses, and the general community. Through the messages conveyed in these PSAs, and with the financial and in-kind support of Cox Communications and Comcast Cablevision, FCPS is able to reach over 250,000 homes in Fairfax County. "smart" PSAs are aired on over 40 cable channels and on the school system's flagship station Red Apple 21.

The 30-second video clips help simplify information about the academic and business aspects of FCPS. They feature teacher excellence, highlight vital school-business partnerships, and explain safety, security and student health issues. FCPS encourages businesses and organizations to partner in the production of these PSAs to highlight their efforts in supporting our students and teachers.

Since 2005 27,777 PSAs have aired on over 40 cable channels valued at \$1,388,900 in air time.

Year	Number of PSA Spots Aired	PSA Value
2007	10,033	\$501,650
2006	8,767	\$438,400
2005	8,977	\$448,850

Indicator 5.d.

A well-designed and highly available website is an essential part of the success and future of an organization. Often, the FCPS public website is the first introduction a customer (such as a parent, student, potential employee, or vendor) will have with the organization. It is vital that the web presence be available and reliable to provide internal and external users with the information and services they need when interacting with FCPS.

The FCPS public web presence is comprised of web servers and related SAN designed and engineered in a redundant fashion to provide a high degree of availability. The FCPS public web infrastructure provides web space for all FCPS schools and administrative offices to publish information consumed by FCPS users, parents and citizens alike.

To provide FCPS public website availability measurements, a reporting tool for system uptime, called ActiveExperts, is utilized. This application is regularly used by the IT Network Operations Center to monitor and report on enterprise systems. To measure FCPS WAN availability, the international standard, Information Technology Infrastructure Library (ITIL) availability measurement is employed which is calculated as follows:

$$(\text{Agreed service time} - \text{Downtime}) / (\text{Agreed service time}) \times 100$$

Based upon these calculations and infrastructure/system precautions in place, an overall annual (24/7/365) availability measurement of 99.89% uptime for this service was obtained between January 1, 2007 and December 31, 2007.

Indicator 5.e.

InteGrade Pro is the electronic gradebook used by middle and high school teachers. By electronically managing students' scores, assignments, and calculated grades, it provides teachers with the ability to track student performance throughout the duration of a course. IGpro also provides teachers with the ability to communicate a student's academic progress to parents during the grading period. Progress reports can be printed and sent home with students or can be sent to parents via e-mail from InteGrade Pro. InteGrade Pro transmits period and final grades back to SASI for report card printing.

Currently 5,869 middle and high school teachers use the InteGrade Pro electronic gradebooks. See Appendix A for a school by school breakdown of teachers with InteGrade Pro gradebooks.

While this tool provides basic functionality for secondary teachers, there are significant limitations. For example, parent access is not available and it does not provide an elementary school gradebook. InteGrade Pro is part of the out-dated SASI suite of products that will be replaced with a new student information system.

Indicator 5.f.

The online school public profiles provide the FCPS community access to school and division-wide information about programs, accreditation, staffing, test results, safe and

secure schools and school technology. To ensure that the information is useful it must be timely and accurate. The chart below illustrates that Information Technology has met indicator 5.f. in 2007 by publishing 100% of all public profile data within the publication schedule advertised on the school public profiles website.

Public Profile Tabs:	*Update Timeframe	Source of Data	Date Published
Overview: Quick Facts	Annually – October	SASI	Completed Aug.1, 2007
Overview: Summary	Annually- prior to beginning of SY	School Admin.	Completed Aug.1, 2007
Accreditation	** Annually – December	VDOE	Dec.13, 2007
Demographics	Annually - September	SASI	Sept. 28, 2007
Staffing	Annually – December	Lawson	Dec., 18, 2007
Test Results HS AP	Late October	College Board	October 30, 2007
Test Results HS IB	Late October	International Baccalaureate	October 30, 2007
Test Results HS SAT	Late October	College Board	October 30, 2007
Test Results MS SOL	** September	VDOE	Aug. 31, 2007
Test Results HS SOL	** September	VDOE	Aug. 31, 2007
Test Results ES SOL	** September	VDOE	Aug. 31, 2007
Test Results ES DRA	Late August	Pearson	Aug. 29, 2007
Safe and Secure	** Annually – February	VDOE	Feb. 16, 2007
In School Technology Inventory	Twice annually – July, Jan.	ACIS	July 26, 2007 Jan. 30, 2008
In School Technology Infrastructure	Annually – July	IT - NSS	July 26, 2007
Technology: Application Use: On Demand Video Classroom Instructional Tool	Twice annually – July, Jan.	Discovery Software	July 26, 2007 Jan. 30, 2008
Technology: Application Use: Online SOL Testing	Annually – July	VDOE	July 26, 2007
Technology: Application Use: FCPS 24/7	Twice annually – July, Jan.	Blackboard	July 26, 2007 Jan. 30, 2008

* The timeframes provided are a general guideline and depend upon the timeliness and accuracy of data received from outside sources.

** The first file from the state will be published as preliminary data and then every 45 days after that, the data will be refreshed until the entire file has been received, and published as final.

Board Comments:

6. Provide a system to access relevant and current data by appropriate users.

Superintendent:	A	<input checked="" type="checkbox"/>	U	<input type="checkbox"/>
School Board:	A	<input checked="" type="checkbox"/>	U	<input type="checkbox"/>

Reasonable Interpretation:

The effective use of data for instructional decision making can improve performance and academic achievement of all students. Having a tool deployed across the organization enables users to have instant access to much of the data they need without waiting for staff members to deliver customized reports. The FCPS Educational Decision Support Library (EDSL) is an enterprise-wide decision support system that provides a central location (data warehouse) for informed instructional decision making for FCPS teachers, principals and district administrators. EDSL provides an easily accessible and user-friendly web-based “one-stop-shop” to system-wide data to support educational decision-making at the local school level, cluster level, and the division level. EDSL delivers Standards of Learning data linked with demographic information, student enrollment and attendance, additional standardized test results, course marks and educational status such as limited English proficiency levels and special education status, to assist teachers and schools in meeting local, state and federal NCLB guidelines. School-based leaders can leverage the information to assess existing instructional programs, communicate effectiveness with local school communities, and plan for the future. Via the school profiles on the public website, www.fcps.edu, EDSL data can also be shared electronically with the public, providing useful information on each of the schools in the areas of academic achievement, demographics, staffing, and discipline.

FCPS must maintain and enhance the EDSL system to support the changing needs of the school division.

Indicator 6.a.

FCPS will report on public utilization of EDSL via the school profiles on www.fcps.edu by counting page views within the profiles.

Indicator 6.b.

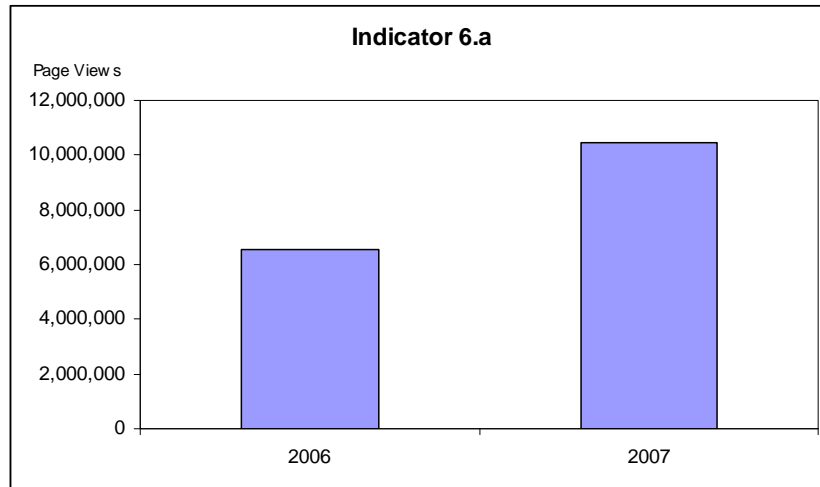
FCPS will report on FCPS utilization of EDSL via the EDSL portal by counting the number of reports opened by users.

Superintendent Statement of Condition:

Indicator 6.a.

The following chart reports on public utilization of EDSL via the school profiles on www.fcps.edu by counting page views within the profiles.

EDSL Public Access



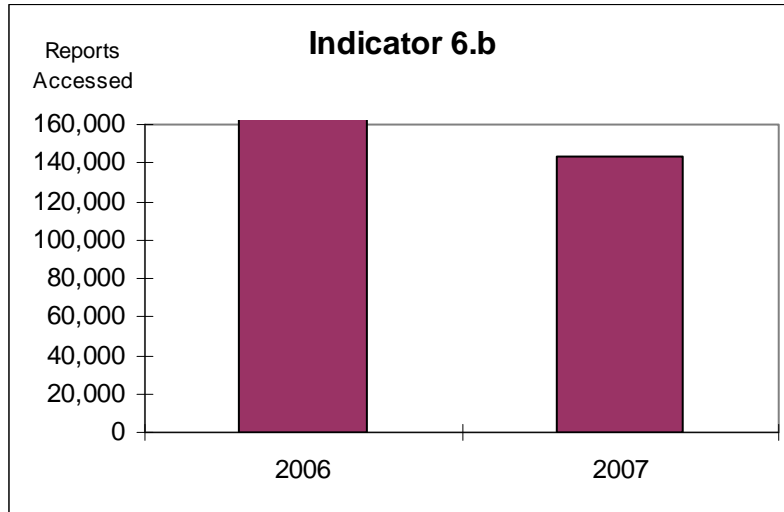
	2006	2007
Number of Page Views	6,528,782	10,476,996
Number of Visitors	293,919	322,238

The chart and table for Indicator 6.a illustrate the level of EDSL usage via the public school profiles. The data indicate that in calendar year 2007, 322,238 visitors viewed 10,476,996 web pages within the EDSL public school profiles. The total pages viewed in 2007 increased by 60.5% over the total pages viewed in 2006.

Indicator 6.b.

The following chart reports on FCPS utilization of EDSL via the EDSL portal by counting the number of reports opened by users.

EDSL Client Access



	2006	2007
Number of Reports Accessed	167,686	143,642
Number of Users	3,451	4,020

The chart and table for Indicator 6.b illustrate the level of EDSL usage via the client application available to FCPS staff and school administrators. The data indicate that in calendar year 2007, 4,020 school administrators and staff accessed 143,642 EDSL reports. With the growing use of the public access profiles, many EDSL users now access the school profiles for “quick” reports, and utilize the EDSL Client Access for more in-depth analysis.

Board Comments:

Summary Statement of the Superintendent:

Fairfax County Public Schools can be proud of the investments it has made in technology to support its students, teachers, staff, parents and community. The state of the technology infrastructure is sound with a robust network and an efficient support model to respond to technology incidents. Information Technology strives to provide technology tools that are useful for students and staff. IT provides opportunities for regular feedback via focus groups and surveys. For students who need an option to the traditional classroom instruction, the on-line campus with 44 courses provides an excellent alternative. While the current student-to-standard computer ratio is 2.2, continued investment in replacement equipment will be required to maintain this ratio.

FCPS excels in supporting diverse learning styles. All of the special education students needing assistive technology receive such equipment and services. As all students benefit from instruction in multiple formats, the Discovery Education *streaming* multi-media instructional tool, now available in all schools, provides a valuable learning resource for teachers and students.

FCPS strives to have productive means for communication. The FCPS 24-7 learning tool has been enhanced through the addition of Wikis and blogs, pilot of the eCART initiative, and the expansion of parent accounts to all schools. E-mail usage continues to grow, providing efficient two-way communication. FCPS successfully shares valuable information about programs, services, and important events through multiple venues – Keep In Touch, television, public service announcements and the web. The award-winning EDSL system provides valuable information for the public as well as FCPS staff on the academic achievement of our students.

Last year the school board directed IT staff to analyze the student information system suite of products and recommend a course of action. As a result, staff presented a business case that concluded the current student information system, in use at FCPS over ten years, lacked the flexibility to meet evolving FCPS needs. The school board approved replacement of the current system through the competitive selection process. Staff then developed the requirements for a new system based on input from 36 focus groups covering the full range of stakeholders, including teachers, parents, and students. Staff released the request for proposal (RFP) to potential bidders in December 2007. Following a rigorous evaluation process, staff expects to recommend a contract award by the end of the current school year. A two-year phased implementation of the new student information system will begin following school board approval of the contract award.

Summary Statement of the Board: The School Board accepted the Information Technology Operational Expectations Monitoring Report as follows:

That the School Board accepts the Information Technology Operational Expectations Monitoring Report and finds that each indicator is acceptable and further commends the IT Department for their exemplary report which should be used as a model for other OE monitoring reports.

Areas for Improvement:

Areas of Commendation:

Date for Re-Monitoring: February 2009