

Chapter 8

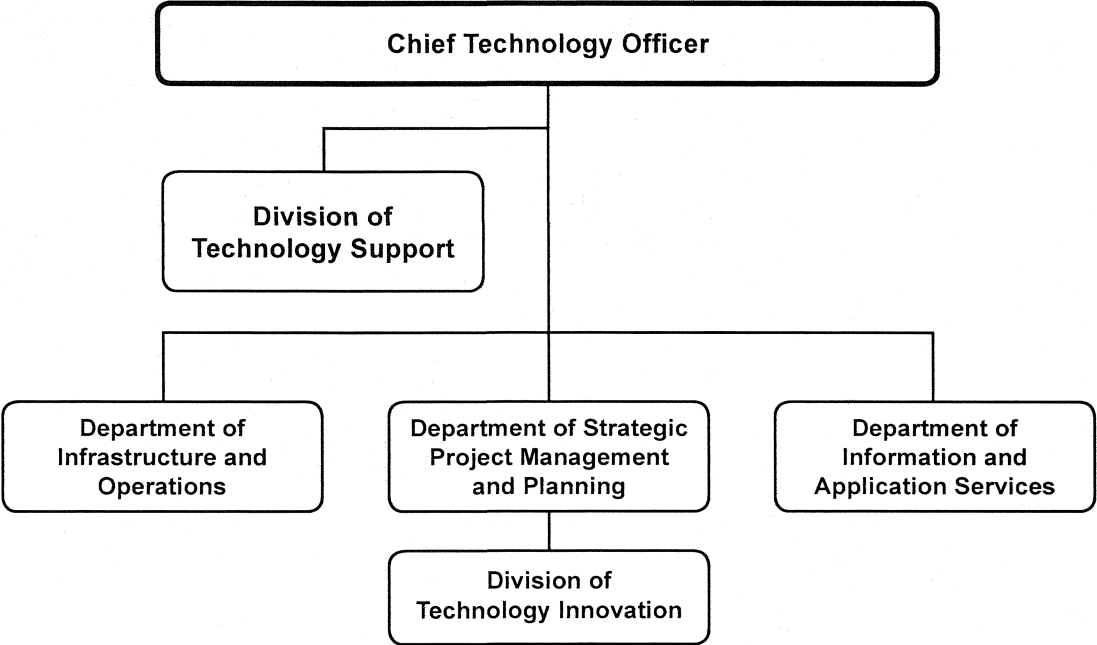
Office of the Chief Technology Officer

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**Office of the Chief Technology Officer
Summary of Resources
By Object of Expenditure**

OBJECT OF EXPENDITURE	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 BUDGET	FY 2011 CHANGE
POSITIONS					
Administrative	17.000	17.000	16.000	16.000	
Business/Operations Admin.	16.000	16.000	15.000	15.000	
Professional	6.000	3.700	3.800	4.800	1.000
Supporting Services	117.800	115.800	118.800	117.800	(1.000)
TOTAL POSITIONS	156.800	152.500	153.600	153.600	
01 SALARIES & WAGES					
Administrative	\$2,082,584	\$2,223,404	\$2,098,618	\$2,135,551	\$36,933
Business/Operations Admin.	1,659,785	1,630,162	1,576,950	1,615,205	38,255
Professional	608,564	460,420	460,420	489,758	29,338
Supporting Services	9,165,335	9,268,155	9,497,340	9,535,962	38,622
TOTAL POSITION DOLLARS	13,516,268	13,582,141	13,633,328	13,776,476	143,148
OTHER SALARIES					
Administrative					
Professional	17,248	9,900	9,900	9,900	
Supporting Services	433,361	503,167	451,980	496,965	44,985
TOTAL OTHER SALARIES	450,609	513,067	461,880	506,865	44,985
TOTAL SALARIES AND WAGES	13,966,877	14,095,208	14,095,208	14,283,341	188,133
02 CONTRACTUAL SERVICES	8,051,556	7,170,124	7,148,055	7,703,132	555,077
03 SUPPLIES & MATERIALS	639,836	681,438	681,438	520,953	(160,485)
04 OTHER					
Staff Dev & Travel	161,457	209,653	209,653	209,810	157
Insur & Fixed Charges	37,525	31,920	31,920	31,920	
Utilities	3,029,160	3,248,254	3,248,254	3,234,948	(13,306)
Grants & Other	434,296	599,573	599,573	599,573	
TOTAL OTHER	3,662,438	4,089,400	4,089,400	4,076,251	(13,149)
05 EQUIPMENT	1,623,440	1,773,878	1,773,878	1,347,450	(426,428)
GRAND TOTAL AMOUNTS	\$27,944,147	\$27,810,048	\$27,787,979	\$27,931,127	\$143,148

Office of the Chief Technology Officer—Overview



F.T.E. Positions 153.6

(*In addition, there are 17.5 Capital Budget positions, and a 0.5 Retirement Fund position shown in Chapter 7, Department of Financial Services.)

Office of the Chief Technology Officer

Chief Technology Officer	1.0
Supervisor (O)	1.0
Assistant to the Associate Superintendent (N)	1.0
Coordinator (N)	1.0
Instructional Specialist (B-D)	1.0
Fiscal Specialist II (25)	1.0
IT Systems Specialist II (18-25)	4.0
Administrative Services Manager 1 (17)	1.0
Fiscal Assistant III (16)	1.0
Administrative Secretary II (15)	1.0
Administrative Secretary I (14)	1.0

Mission

The mission of the Office of the Chief Technology Officer (OCTO) is to provide high-quality technology systems and services essential to the success of every student. The office is committed to excellence in providing technology solutions to support teachers, engage students, and assist in the effective business operations of Montgomery County Public Schools (MCPS). These solutions are reflective of the requirements and priorities of our stakeholders, are developed following best practices for project management, and are implemented with continuous collaboration and communication.

The office is dedicated to creating an organizational culture of respect, where individuals are aware and understand the impact of their behavior and decisions on others and have an awareness, understanding, and tolerance of other interests, viewpoints, cultures, and backgrounds.

Major Functions

OCTO is comprised of three departments and two divisions—the Department of Strategic Project Management and Planning, which leads the strategic visioning and planning for the use of technology in MCPS based on quality and secure standards, coordinates statewide educational technology efforts, and manages technology-related federal programs; the Department of Information and Application Services, which provides expert recommendations for the integration of state-of-the-art technology into student and administrative practices and support services; the Department of Infrastructure and Operations, which manages the technical enterprise configurations for information systems and provides the operational support for administrative data and reports; and two divisions that provide technology support and innovations. The office supports instruction and student achievement by designing and developing innovative approaches and strategic technologies in support of *Our Call To Action: Pursuit of Excellence*, the Strategic Plan for Montgomery County Public Schools; the Maryland Educational Technology Plan for the New Millennium: 2007–2012; and the *No Child Left Behind* Act of 2001 (NCLB). OCTO develops technology systems with a commitment to customer satisfaction and to the delivery of high-quality products and services. Staff is committed to providing support that is responsive to the needs of the MCPS user community.

The Department of Strategic Project Management and Planning (DSPMP) oversees the use of effective project management and quality assurance processes and tools for OCTO. DSPMP staff provides leadership, collaboration, and coordination to ensure that information technology projects and systems are developed and implemented based on MCPS end user and reporting requirements and are consistent with industry-standard project management, quality assurance, and information technology security processes and practices. Staff in the department works with project managers in each OCTO department and division to share and implement project management best practices that result in success.

The Department of Information and Application Services (DIAS) supports student and business technologies by

providing leadership, collaboration, and coordination of OCTO initiatives through the development, implementation, and continuous improvement of MCPS technology solutions. These MCPS student, administrative, and operational services allow schools and offices to collect essential data; make decisions and plans based on data analysis; disseminate accurate, current, and timely information; and conduct efficient daily management and support operations.

The Department of Infrastructure and Operations (DIO) manages the enterprise-wide technical systems and facilitates the implementation of effective, secure, and reliable hardware and software solutions for the entire school system. The DIO staff provides operational support for administrative data and reports.

The divisions providing technology support and modernization facilitate the effective use of technology as an everyday tool within MCPS for the benefit of all users including students, teachers, parents, staff, and the local and worldwide learning community. The responsibilities of these divisions are closely aligned with the Technology Modernization Program (Tech Mod), funded through the Capital Improvements Program (CIP), that refreshes technology in schools and offices. The Division of Technology Support provides onsite technical support to staff in schools and offices, Help Desk services, and customer relationship management. The Division of Technology Innovation oversees field installation and project management, research and development, strategic and tactical planning of the capital program for technology refreshment, coordination of statewide educational technology efforts, and management of technology related federal programs. The Division of Technology Innovation also manages the Title II-D Educational Technology grant, which supports the innovative use of technology in classroom instruction and student learning, such as Middle School Reform technology, technology magnet programs, and professional development for information technology system support employees. This division continuously cultivates strategic partnerships with vendors that focus on improving product and service prices, quality, and on-time delivery.

The office provides services through five organizational areas—information security, quality assurance, software testing, applications development, and systems architecture and operations management.

Trends and Accomplishments

Responding to the demands for accountability and a rigorous instructional program as set forth by the Board of Education and the *No Child Left Behind* (NCLB) legislation requires technology systems that are highly responsive to the need for actionable information to support continuous improvement in teaching and learning. *Our Call to Action: Pursuit of Excellence* calls for improvements in how the school system measures the performance of the organization and how educators analyze performance data to make decisions that will improve student success. Technology systems such as myMCPS save teachers time while providing access to comprehensive data to guide instruction. Innovative

technologies, such as interactive white boards, student response systems, and expanded wireless capabilities focus on engaging students while developing critical thinking and problem-solving skills. The need for highly responsive access to network-based resources; the expectation that systems will be intuitive, user-friendly, and safe; and the ability to deploy new systems rapidly all have a major impact on OCTO and its priorities. New networked technology solutions are essential elements of the infrastructure needed to increase productivity and enhance learning by making use of anytime, anywhere access to electronic information and communication. Online and e-learning technologies offer increasing possibilities for delivering instruction and expanding student and staff learning opportunities. Initiatives such as electronic grade books, computer-based assessments, and information systems for parents illustrate the need for forward-thinking and rapid implementation of technology environments to support and sustain innovative instructional programs.

The growing school and office dependence on quality technology solutions requires the continuous improvement of automated information systems and the supporting infrastructure. The ever-increasing need for accurate and timely information that enhances school and office productivity requires MCPS staff to evaluate new strategies to deliver student and business technology solutions. As MCPS technology infrastructure grows in size and complexity, coordination and standardization of components become key concerns. Processes through which technology projects are designed and implemented are slated for continuous improvement.

OCTO accomplishments in FY 2010 focused on continued support of improved process management practices. The office's focus was on improving collaboration and listening and learning from stakeholders.

Efforts to continuously increase the quality of services provided to all MCPS technology users focused on expanding the ability to meet increasing customer requests accurately and in a timely manner.

In FY 2010, the office implemented innovative technology solutions for the 21st century classroom, provided leadership for the design and implementation of online curriculum delivery, and expanded project and process management practices in collaboration with MCPS-wide initiatives.

The office supported the use of 21st Century technologies to transform teaching and learning. Using the stimulus funding set aside for universal design for learning, interactive white boards, student response systems, and netbook mobile carts were installed in all classrooms in four elementary schools. The division also supported the administration of the Maryland Measures of Student, Teacher, and School Administrator Literacy Assessment to gather baseline data.

The Technology Modernization program, which replaces four-year old computers in schools, was delayed one year due to the fiscal crisis, creating a five-year replacement cycle through FY 2012. A project was initiated that refurbished and repaired 7,109 computers in the 42 schools that had

been anticipating the replacement of their four-year old computers in FY 2010. These schools included two high schools, 14 middle schools, and 26 elementary schools. Also, the division supported the installation of technology for five schools with construction projects, including one new school, three modernized schools, and one school with an addition.

Office staff supported the federal application processes for E-Rate telecommunication rebates totaling approximately \$1.8 million for FY 2009.

During FY 2010, the office deployed a comprehensive user identity management system, which automates user account creations and deletions, as well as handles exceptions using workflows, manages password policies, provides compliance with audit requirements and provides users with password self-service. By automating these complicated tasks, this system minimizes human errors in managing user accounts and provides necessary audit reports. In addition to the initial creation of access privileges, this system helps to dynamically adapt to changes in business requirements.

The office upgraded the MCPS e-mail system to Exchange 2007 to take advantage of increased protection of data for security and to optimize our investment for future growth. This upgrade also provides more powerful Web access so users can access documents in their work location from remote locations.

The MCPS Wide Area Network (WAN) continues to carry additional Internet Protocol (IP) services throughout MCPS with the addition of IP-based building-wide security cameras in 13 secondary schools, 38 visitor-management systems in elementary and middle schools, and introduced IP-based building access control systems in 52 elementary schools in FY 2010. The information provided by these systems traverses the MCPS Local Area Network (LAN)/WAN providing critical information to both MCPS safety and security staff and the Montgomery County Police.

In FY 2010, the implementation of myMCPS, an enterprise portal which provides MCPS staff with access to services based on their role, was a major step towards simplifying access to key information and applications that help staff work more effectively and efficiently. The myMCPS portal has been engineered as a social network to facilitate collaboration among staff, students, and parents to augment the continuum of teaching and learning at MCPS. By concentrating work efforts in a single tool that delivers rich, role-specific content to all members based on best practices and a real-time input and feedback loop, myMCPS streamlines processes previously accomplished by accessing and mastering multiple systems, and also accelerates the communication of ideas and results across groups, further extending the professional learning community beyond previous perceived boundaries.

The elementary school (ES) OARS project has expanded to include Grades 4 and 5 in the 25 selected schools. ES OARS has been updated allowing teachers to use newly established measurement topics for grading and reporting. A new standards-based report card has been developed to reflect

revised measurement topics in Grades 1 through 3, and new measurement topics for Grades 4 and 5.

New features within the Human Resources Information System (HRIS) include the rollout of Lawson's portal for users to have Web-access to HRIS and the development of new workflows using Lawson's Process Flow Integrator (PFI). The PFI enables MCPS to quickly develop complex integrations with other systems and to automate processes increasing the efficiency of the Office of Human Resources (OHR) and Employee Retirement Services Center (ERSC) staff.

The implementation of the web-based solution HRO automates and continuously improves the development and management of Human Resources processes and facilitates efficient transactional integration between personnel-based systems. Integration between HRO and the myMCPS portal will enable staff to manage their personnel data and automate former paper based transactions.

In FY 2009, 94,213 requests for services and support were opened in the Unicenter Service Desk (USD) issue tracking system by MCPS staff in schools and offices as compared to 102,760 in FY 2008. The number of requests opened in the USD issue tracking system declined, in part, as a result of improved self-service options provided to customers.

In FY 2010, the office applied for and received funding to lead a competitive grant under Title II-D—Enhancing Education Through Technology under the *No Child Left Behind* Act. This grant funds a state-wide consortium for administering and analyzing results of the Maryland Measures for Student, Teacher, and School Administrator Technology Literacy. Division staff, funded through the Title II-D Educational Technology allocation, supported the critical thinking program in seven participating schools.

Major Mandates

- The NCLB and the state's Bridge to Excellence in Public Schools Act mandate data collection and distribution that require up-to-date infrastructure and equipment in all schools, as well as access to system information.
- *Our Call to Action: Pursuit of Excellence* focuses on an accountability framework for measuring past performance and evaluating where continued change needs to be made, as well as requiring access to and use of a variety of technological applications and services that help provide an effective instructional program and create a positive work environment in a self-renewing organization.
- The NCLB requires the administration of state-mandated tests including the Maryland School Assessment (MSA) in Grades 3–8 and 10; the High School Assessments; the Independence Mastery Assessment Program (IMAP) for students in the fundamental life skills curriculum; and the IDEA Proficiency Test (IPT) for students in the English for Speakers of Other Languages (ESOL) program.
- The Maryland Educational Technology Plan for the New Millennium: 2007–2012 presents technology objectives and targets in the areas of student learning, professional development, administrative productivity and efficiency,

universal access, and research and evaluation. This plan includes a number of local school system targets that are to be achieved by 2012, including the development and implementation of data management systems, integrated student information systems, curriculum/content management systems, and learning management systems, the development of processes and strategies to provide electronic communication with educators, students, parents, and the community, the use of electronic information and communication tools by all staff to improve management and operational efficiency.

- The Telecommunications Act of 1996 (Section 954h.B) and Federal Communications Commission Order 9-57 stipulate that requests for Universal Service Program discounts (E-Rate) must be based on an approved technology plan that includes clear goals and strategies for integrating telecommunications services and Internet access into the school district's educational program, a professional development strategy, a needs assessment, a sufficient budget for acquisition and maintenance, and a program evaluation.
- The NCLB requires that programs funded through Title II-D, Enhancing Education Through Technology, must be based on an approved technology plan, must comply with state and federal laws and regulations, and must ensure timely and meaningful consultation with nonpublic school officials during the design and implementation of programs.
- The Children's Internet Protection Act requires that school systems receiving NCLB Title II-D funding or E-Rate discounts for Internet services must have policies and use technology protection measures that address issues related to the safety and security of minors and adults while using the Internet and electronic communication.
- Activities funded through Title V, Innovative Education Programs, must comply with state and federal laws and regulations; and OCTO must plan for participation of children enrolled in nonpublic schools.
- The MCPS Board of Education Policy, IGS, Educational Technology, December 8, 1993, requires that MCPS staff and students be provided with easy, equitable access to technology tools.
- Expectations of the Maryland Core Learning Goals and alignment with the Maryland High School Assessments and Maryland School Assessments require a modern infrastructure for delivery of online tests and courses.

Strategies

- Realign organizational structure to effectively support the district's priorities.
- Transform the organizational culture.
- Define and adopt a customer engagement and relationship model and process.
- Develop a next generation information technology workforce by building staff capacity.
- Strengthen operational coherence and risk management through appropriate stakeholder governance.

- Build understanding and support for development of a teaching and learning networked community using Web 2.0 systems.
- Ensure students and staff can access, generate, and use data.
- Provide technologies that engage students, encourage critical-thinking and problem-solving skills in support of our rigorous curriculum.
- Provide strategic leadership for all technology initiatives being implemented throughout the school system.
- Create a multiyear technology road map identifying strategic plans for school-based software and hardware technologies, telecommunications, network operating systems, and support systems firmly based in industry standards and instructional research.
- Provide support for systemwide initiatives by maintaining a technology infrastructure that provides a platform capable of supporting modern technological hardware and software tools.
- Support the development and implementation of integrated information technology systems to improve products, resources, and services; providing technical support and instruction to ensure that these systems are fully utilized and meet customer needs.
- Implement technologies to support expansion of anytime, anywhere professional development and student learning.
- Model effective implementation of the professional growth system for all OCTO staff to enhance their abilities to support program strategies and new technologies skills.
- Collaborate with other offices and departments to understand their needs and to provide effective services to schools.
- Collaborate with private businesses and other school districts to gain knowledge of best practices.
- Consult with education, business, community, and government groups to ensure that programs and services are appropriate to prepare students for higher education and the workplace of the future.
- Use Baldrige and Six Sigma for performance excellence and assessment of results to guide organizational improvements.
- Build relationships that increase customer loyalty and satisfaction.
- Improve project management through implementation of effective strategies for chartering projects, team effectiveness, and organizational alignment.
- Improve all key work processes to optimize performance.
- Cultivate strategic partnerships with vendors that focus on improving product and service prices, quality, and on-time delivery.

**Budget Explanation
Office of the Chief Technology
Officer—411/441**

The FY 2011 request for this office is \$5,828,735, an increase of \$17,004 from the current FY 2010 budget of \$5,811,731. An explanation of this change follows.

Continuing Salary Costs—\$12,788

There is an increase of \$12,788 in continuing salary costs to reflect step or longevity increases for current employees.

Realignments—\$4,216

There is a realignment of a 1.0 instructional specialist position and \$76,002 from the Division of Technology Support into this budget. Also, there are realignments decreasing contractual maintenance by \$48,300, software by \$10,180, and telephone costs by \$13,306 to support other technology unit budget needs.

**Budget Explanation
IDEA—Early Intervening Services
Project—965**

The current FY 2010 budget for this project is changed from the budget adopted by the Board of Education on June 9, 2009. There is a reduction of \$123,438 for this grant program this year based on a change in the program funded by the grantor. These funds are realigned to the locally funded budget for the Department of Information and Application Services. An offsetting shift from the locally funded budget to this grant is shown in page I-6.

Project’s Funding History

Sources	FY 2010 Projected 7/1/09	FY 2010 Received 11/30/09	FY 2011 Projected 7/1/10
Federal	\$123,438		
State			
Other			
County			
Total	\$123,438		

Office of Chief Technology Officer - 411/441

Sherwin Collette, Chief Technology Officer

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	13,000	13,000	13,000	14,000	1,000
Position Salaries	\$1,236,115	\$1,182,661	\$1,182,661	\$1,271,451	\$88,790
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		95,829	95,829	95,829	
Other					
Subtotal Other Salaries	130,517	95,829	95,829	95,829	
Total Salaries & Wages	1,366,632	1,278,490	1,278,490	1,367,280	88,790
02 Contractual Services					
Consultants		7,124	7,124	7,124	
Other Contractual		482,168	482,168	376,907	(105,261)
Total Contractual Services	887,863	489,292	489,292	384,031	(105,261)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		18,150	18,150	18,150	
Other Supplies & Materials		23,173	23,173	12,993	(10,180)
Total Supplies & Materials	17,510	41,323	41,323	31,143	(10,180)
04 Other					
Local Travel		2,432	2,432	2,432	
Staff Development		160,621	160,621	160,621	
Insurance & Employee Benefits					
Utilities		3,248,254	3,248,254	3,234,948	(13,306)
Miscellaneous		540,000	540,000	540,000	
Total Other	3,486,812	3,951,307	3,951,307	3,938,001	(13,306)
05 Equipment					
Leased Equipment		11,617	11,617	68,578	56,961
Other Equipment		39,702	39,702	39,702	
Total Equipment	325,265	51,319	51,319	108,280	56,961
Grand Total	\$6,084,082	\$5,811,731	\$5,811,731	\$5,828,735	\$17,004

Office of Chief Technology Officer - 411/441

Sherwin Collette, Chief Technology Officer

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
1	Chief Technology Officer		1.000	1.000	1.000	1.000	
1	O Supervisor		1.000	1.000	1.000	1.000	
1	N Asst. to Assoc Supt		1.000	1.000	1.000	1.000	
1	N Coordinator		1.000	1.000	1.000	1.000	
3	BD Instructional Specialist					1.000	1.000
1	25 IT Systems Specialist		4.000	4.000	4.000	4.000	
1	25 Fiscal Specialist II		1.000	1.000	1.000	1.000	
1	17 Admin Services Manager I		1.000	1.000	1.000	1.000	
1	16 Administrative Secretary III			1.000			
1	16 Fiscal Assistant III		1.000	1.000	1.000	1.000	
1	15 Administrative Secretary II		1.000		1.000	1.000	
1	14 Administrative Secretary I		1.000	1.000	1.000	1.000	
Total Positions			13.000	13.000	13.000	14.000	1.000

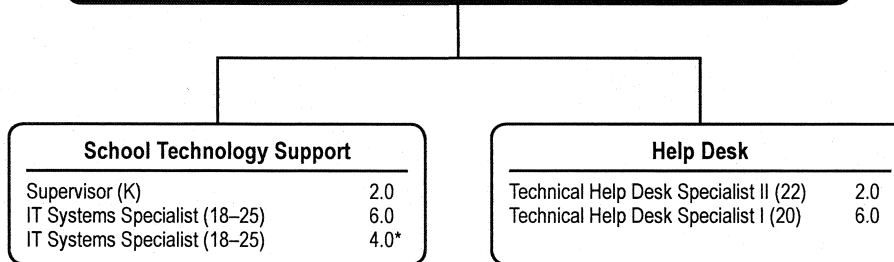
IDEA - Early Intervening Services - 965

Sherwin Collette, Chief Technology Officer

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)					
Position Salaries					
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries					
Total Salaries & Wages					
02 Contractual Services					
Consultants					
Other Contractual		123,438			
Total Contractual Services	246,876	123,438			
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office					
Other Supplies & Materials					
Total Supplies & Materials					
04 Other					
Local Travel					
Staff Development					
Insurance & Employee Benefits					
Utilities					
Miscellaneous					
Total Other					
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	<u>\$246,876</u>	<u>\$123,438</u>			

Division of Technology Support

Director I (P)	1.0
IT Systems Engineer (27)	1.0
IT Systems Specialist (18-25)	8.0
IT Systems Technician (18)	1.0
Administrative Secretary II (15)	1.0
Data Operator I (13)	1.0
Secretary (12)	1.0



School Technology Support	
Supervisor (K)	2.0
IT Systems Specialist (18-25)	6.0
IT Systems Specialist (18-25)	4.0*

Help Desk	
Technical Help Desk Specialist II (22)	2.0
Technical Help Desk Specialist I (20)	6.0

F.T.E. Positions 30.0

(*In addition, there are 4.0 Capital Budget positions shown on this chart)

Mission

The mission of the Division of Technology Support is to provide technical assistance to schools and offices while maintaining the operational readiness of new and existing hardware and software.

Major Functions

The Division of Technology Support provides technical assistance to staff in all Montgomery County Public Schools (MCPS) schools and offices through the services of the School Technology Support team, Help Desk, Technical Services and Support team, and the Customer Relationship Manager.

The School Technology Support (STS) team consists of three groups—first and second-level Information Technology Support Specialists (ITSS) and certified computer repair staff. The ITSS group is responsible for network administration, server, workstation and printer maintenance and repair, as well as software installation and upgrades. Their work assignment includes all elementary schools and five special schools. This group routinely partners with administrators, teachers, media specialists, and Central Office staff to prepare for events that require technical assistance. They also participate in project management in support of school initiatives. The certified hardware repair group is deployed to kindergarten through Grade 12 locations to troubleshoot, diagnose, and repair hardware that is no longer under warranty. The workload of the STS team is monitored through the Unicenter Service Desk (USD) issue tracking system, which allows the supervisors to more effectively adjust resource allocation needs. Although USD is the major source of requests for service and support, the team also receives communications through e-mail, telephone, routine and emergency site visits, and internal requests for more advanced help to resolve a problem. The STS team works proactively to identify industry best practices to improve customer service.

The Help Desk team provides one central location for MCPS staff to seek information and immediate resolution to technical problems. Requests for service are received by telephone, e-mail, and the USD issue tracking system. The Help Desk specialists attend ongoing training to resolve basic network issues, support new application inquiries, and respond to software questions, such as questions about the Microsoft Office suite of products. This team also attends operations and applications training to ensure that the most current information available is shared with MCPS staff. The Help Desk team routinely researches and collaborates with other technologists in order to post useful information and timely solutions to frequently asked questions on the Help Desk website. The Help Desk collaborates with appropriate staff and departments to create Service and Operation Level Agreements that specifically outline a comprehensive support plan for all MCPS enterprise applications.

The Technical Services and Support (TSS) team is responsible for maintaining equipment in nonschool-based offices and providing technical support for audiovisual equipment

in schools. TSS support for nonschool-based offices includes onsite equipment repair, software upgrades, office relocations, and maintenance of equipment no longer under warranty. Staff provides integration services, preventative maintenance, network administration, and desktop image development. This team also provides technical support and equipment for MCPS meetings and activities. The staff manages the Instructional Equipment Replacement program for audiovisual equipment in the schools and meets with principals of new and modernized schools to assist with the planning and acquisition of new audiovisual equipment.

The Customer Relationship Manager (CRM) works in partnership with school-based staff and a cross-section of MCPS office personnel to gather requirements for new projects, collaborates with the Office of the Chief Technology Officer's staff to ensure alignment between Central Office and end user needs, and provides data that informs the quality of service to schools and offices. The CRM is responsible for extracting data from the USD issue tracking system to design customized reports for schools and Central Office requests for information. As projects are implemented, the CRM provides daily statistics that reflect the level of success of critical initiatives. The CRM serves as a subject matter expert, application administrator, and project manager for upgrades to the USD issue tracking system. The CRM facilitates meetings to outline the Operation Level Agreement model that identifies the industry-standard approach to developing support plans and process maps.

Trends and Accomplishments

In FY 2009, 94,213 requests for services and support were opened in the USD issue tracking system by MCPS staff in schools and offices as compared to 102,760 in FY 2008. The number of requests opened in the USD issue tracking system declined, in part, as a result of improved self-service options provided to our customers.

In FY 2009, STS staff resolved 36,782 reported problems. Results from our customer service satisfaction survey indicate that ITSS staff met or exceeded our customers' expectations for the services and information provided 91.3 percent of the time. ITSS staffing is based on a geographical team model with primary and backup assignments for each school. This model provides onsite support for over 90 percent of all elementary schools each week.

In FY 2009, of the 94,213 requests logged by the system, the MCPS Help Desk opened 46,119 tickets and closed 30,431 requests at first contact. In addition, they processed another 23,111 tickets that were submitted by other MCPS staff via the Web for a total of 69,230 tickets handled by the eight member team. The team leaders of the Help Desk are proactive in using the issue tracking software to spot trends. They routinely use this information to provide first-level troubleshooting before escalating an issue to second-level support staff. The Help Desk team continuously works to improve customer service by collaborating with other OCTO teams and by incorporating user feedback into daily operations. They participate in the development of customized

support plans and Service and Operation Level Agreements that are essential to the seamless delivery of service to our customers. This team periodically meets with various project teams to prepare training documents and assist in training designated staff on new enterprise applications. The Help Desk maintains the Help Desk website and provides users with timely solutions to frequently asked questions.

In FY 2009, the TSS team closed 892 emergency priority requests handling 85 percent within the 12-hour Service Level Agreement (SLA). The TSS team also handled 2,281 normal priority calls, meeting the three-day SLA and performance measure 76 percent of the time. The total number of requests for this time period was 3,180.

In FY 2010, the Customer Relationship Manager worked with cross-functional teams to establish and monitor Organization Level Agreements (OLAs) that support priority initiatives. The CRM uses Crystal Reports software to provide performance statistics on projects such as the myMCPS web portal; the Online Administrative Student Information System (OASIS); the Online Achievement Reporting System (OARS), the electronic grade book used to report and maintain student records; Edline, the parent communication tool, and MAP-R, the measurement accountability reading system. Under the direction of the CRM, phase two of the USD issue tracking system upgrade project gave employees a more intuitive web interface with the USD issue tracking system and gave MCPS staff the ability to find answers to many of their questions in the Knowledge Tools knowledge base.

Major Mandates

- *Our Call to Action: Pursuit of Excellence* identifies technology as a critical learning tool in schools. Access to and use of a variety of technological applications and services are essential to an effective instructional program and help to create a positive work environment in a self-renewing organization. Specific strategies/initiatives include refreshing hardware and software and network infrastructure through the Technology Modernization project and providing testing support of innovative technologies.
- The federal *No Child Left Behind Act of 2001* and the state's Bridge to Excellence in Public Schools Act require up-to-date infrastructure and equipment in all schools.
- The federal *No Child Left Behind Act of 2001* requires the administration of state-mandated tests including the Maryland School Achievement Assessment (MSA), Independence Mastery Assessment Program (IMAP), and the IDEA Proficiency Test (IPT).
- Expectations of the Maryland Core Learning Goals and alignment with the Maryland High School Assessments and Maryland School Assessments require a modern infrastructure for delivery of online tests and courses.
- The MCPS Board of Education policy, IGS, Educational Technology, December 8, 1993, requires that MCPS staff and students be provided with easy, equitable access to technology tools.

Strategies

- Provide technology support for instructional programs and other system-wide initiatives by maintaining an infrastructure that provides a platform capable of supporting modern technological hardware and software tools.
- Participate in strategic planning for the creation of a multiyear technology road map, identifying strategic plans for school-based software and hardware technologies, telecommunications, network operating systems, and a support system firmly based in industry standards and instructional research.
- Support the technology modernization project providing access to high capability computers with web connectivity in schools and the community.
- Support the development and implementation of integrated information technology systems to improve products, resources, and services. Provide technical support and instruction to ensure that these systems are fully used and meet customer needs.
- Provide just-in-time support for the MSA, IMAP, and the IPT tests.
- Develop management strategies and align resources and services to accomplish the OCTO strategic plan. Involve customers and stakeholders in decisions on the use of resources.
- Work collaboratively with other OCTO teams to assess and respond to customer needs and provide ongoing technical and operational support to schools.
- Increase DTS staff involvement in strategic planning and continuous improvement efforts through timely communications and participation in cross-functional work groups in schools and offices.
- Support administrative and instructional computers and provide solutions to technical problems in a timely, efficient, and reliable manner.
- Respond to customer needs by monitoring performance, including the turnaround time for repairs and service, and the number and types of requests submitted to the Help Desk.
- Coordinate and provide computer integration services, software installation, and outreach to assess complex problems and address staff training needs.
- Increase user independence and skills in their ability to resolve and prevent technology-related problems through just-in-time help and expanded knowledge tools through self-help systems.
- Provide accurate and timely information to customers.
- Support the development and implementation of new applications through ensuring access to reliable technology, assisting in training, and providing on-site and remote technical support.
- Ensure technical readiness in schools.

Performance Measures

Performance Measure: Percentage of phone requests both opened and closed by the Help Desk staff on first customer contact (as measured by closure in USD issue tracking system within 2 hours).

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
66%	67%	68%

Explanation: This measure is an indication of the timeliness of problem resolution by Help Desk staff within the Service Level Agreement. NOTE: A change in Help Desk processes significantly reduced the number of duplicate requests for support. While this change resulted in better service for our end-users, it reduced the percent of tickets “closed at the first contact”.

Performance Measure: Percentage of customers who are satisfied with the timelines of service received from an MCPS hardware technician.

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
98.3%	99%	99%

Explanation: This measure is an indication of the timeliness of problem resolution by the MCPS hardware staff servicing non-warranty equipment K-12.

Performance Measure: Percentage of customers who indicate satisfaction with the level of knowledge demonstrated by their ITSS.

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
97.2%	98.2%	99%

Explanation: This measure reflects the level of customer satisfaction with the services provided by the assigned technologist.

**Budget Explanation
Division of Technology Support—
422/423/424**

The FY 2011 request for this Division is \$2,538,465, an increase of \$13,337 from the current FY 2010 budget of \$2,525,128. An explanation of this change follows.

Continuing Salary Costs—\$89,239

There is an increase of \$89,239 in continuing salary costs to reflect step or longevity increases for current employees.

Realignments—(\$75,902)

There is a realignment of a 1.0 IT system specialist and \$76,002 from this budget to the Office of Chief Technology Officer’s budget. Also, there is a realignment of \$100 from the Office of the Chief Technology Officer’s budget to support dues, registrations and fees in this budget.

Division of Technology Support - 422/423/424

Shelley Beddingfield, Director I

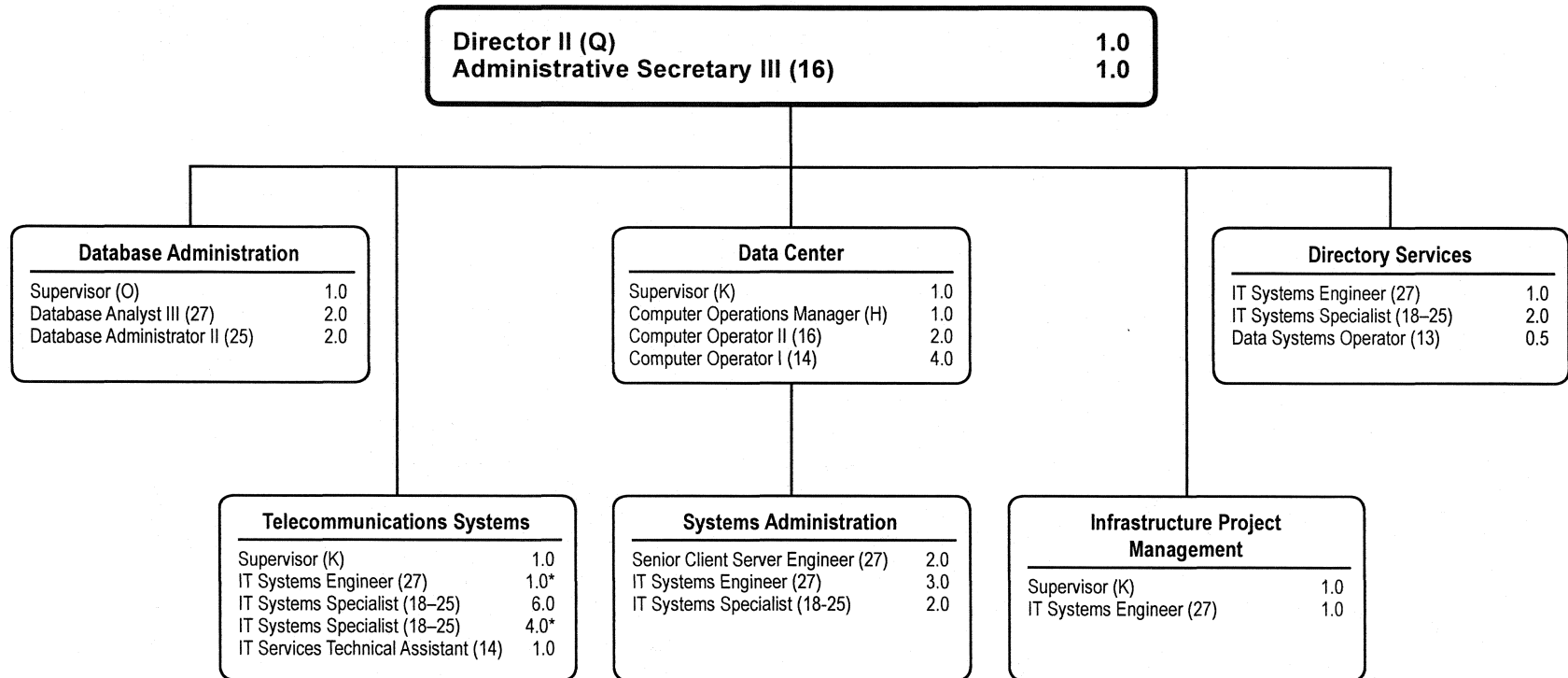
Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	32,000	31,000	31,000	30,000	(1,000)
Position Salaries	\$2,415,667	\$2,457,677	\$2,437,178	\$2,450,415	\$13,237
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time			20,499	20,499	
Other					
Subtotal Other Salaries	5,166		20,499	20,499	
Total Salaries & Wages	2,420,833	2,457,677	2,457,677	2,470,914	13,237
02 Contractual Services					
Consultants					
Other Contractual		23,850	23,850	23,850	
Total Contractual Services	94,154	23,850	23,850	23,850	
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		12,692	12,692	12,692	
Other Supplies & Materials		14,762	14,762	14,762	
Total Supplies & Materials	33,205	27,454	27,454	27,454	
04 Other					
Local Travel		4,647	4,647	4,647	
Staff Development		1,395	1,395	1,495	100
Insurance & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	16,892	6,042	6,042	6,142	100
05 Equipment					
Leased Equipment		10,105	10,105	10,105	
Other Equipment					
Total Equipment	15,925	10,105	10,105	10,105	
Grand Total	<u>\$2,581,009</u>	<u>\$2,525,128</u>	<u>\$2,525,128</u>	<u>\$2,538,465</u>	<u>\$13,337</u>

Division of Technology Support - 422/423/424

Shelley Beddingfield, Director I

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
	422 Division of Technology Support						
1	P Director I		1.000	1.000	1.000	1.000	
1	27 IT Systems Engineer		1.000	1.000	1.000	1.000	
11	25 IT Systems Specialist		8.000	8.000	8.000	8.000	
11	18 IT Systems Technician		1.000	1.000	1.000	1.000	
1	15 Administrative Secretary II			1.000	1.000	1.000	
1	14 Administrative Secretary I		1.000				
11	13 Data Operator I		1.000	1.000	1.000	1.000	
1	12 Secretary		1.000	1.000	1.000	1.000	
	Subtotal		14.000	14.000	14.000	14.000	
	423 Help Desk						
1	22 Technical Help Desk Spec II		1.000	1.000	1.000	1.000	
3	22 Technical Help Desk Spec II		1.000	1.000	1.000	1.000	
1	20 Technical Help Desk Spec I		2.000	2.000	2.000	2.000	
3	20 Technical Help Desk Spec I		4.000	4.000	4.000	4.000	
1	18 Technical Help Desk Asst		1.000				
	Subtotal		9.000	8.000	8.000	8.000	
	424 School Technology Support						
11	K Supervisor		2.000	2.000	2.000	2.000	
11	25 IT Systems Specialist		7.000	7.000	7.000	6.000	(1.000)
	Subtotal		9.000	9.000	9.000	8.000	(1.000)
	Total Positions		32.000	31.000	31.000	30.000	(1.000)

Department of Infrastructure and Operations



F.T.E. Positions 35.5

(*In addition, there are 5.0 Capital Budget positions shown on this chart.)

Mission

The mission of the Department of Infrastructure and Operations is to manage the enterprisewide technical systems, including the data center, network connections and telephones; and to facilitate the implementation of effective, secure, and reliable hardware and software solutions. This department also is responsible for providing the operational support for administrative data and reports aligned with *Our Call to Action: Pursuit of Excellence*.

Major Functions

The department accomplishes its mission through six units—Database Administration, Data Center, Telecommunication Services, System Administration, Directory Services, and Infrastructure Project Management. All six units work collaboratively to ensure that Montgomery County Public Schools (MCPS) technology systems are designed and operated in the most efficient manner possible.

The Database Administration unit is responsible for creating, maintaining, backing up and recovering, and monitoring enterprise databases (e.g., Online Administrative Student Information System (OASIS), online student look-up, period-by-period attendance, grading and reporting, financial management system, payroll, and retirement) for effective use in an operational environment. This includes all student and business systems.

The Data Center operates, monitors, and provides technical support for the MCPS central servers and related equipment (high-speed printers and scanners) to allow 24-hour access to essential student and administrative databases and to run applications, including payroll, student attendance and enrollment, retirement, asset management, financial management, report cards, and online materials ordering application systems.

The Telecommunication Services unit designs, installs, and supports local and wide-area networks (LAN/WAN) which include wiring in schools, central office, and field offices. The unit maintains all telephone systems, both wired and cellular, including school and office voice mail systems, data transmission lines, and voice circuits. The Telecommunication Services unit supports converged telephony which combines voice, data, and video on data circuits. Telephony specialists evaluate current system needs while reviewing telecommunications trends. To improve MCPS telecommunications capabilities, staff is responsible for researching, planning, expanding, and modernizing existing systems as both technology and location needs evolve. The unit monitors and maintains the MCPS WAN, which is implemented by connections through several carriers, including the county's fiber-optic network (FiberNet). The connection to the Internet and county government, the security firewall, the intrusion detection/prevention equipment, and the Internet protocol (IP) security video solution for secondary schools, along with the data wiring at new and modernized construction projects including the telephone and cable television distribution systems also are the responsibility of this unit.

The System Administration unit designs systems architecture for new or upgraded applications; and installs, manages, and supports enterprise servers that house the technology systems used by staff and students. The unit is responsible for the efficient operation of the systems as well as preventive security measures. Enterprise-wide data backup solutions are managed by this unit, including backing up central data as well as remotely backing up school data. The unit ensures that systems can be recovered quickly in the event of mechanical failure or disaster.

The Directory Services unit is responsible for systemwide user account management for the network and all application systems such as the student data system, financial management system, and human resources to enable appropriate access for MCPS users. The unit also manages the operation of the MCPS e-mail system and is responsible for all e-mail system upgrades and implementations.

The Infrastructure Project Management unit manages major projects within the Department of Infrastructure and Operations and provides collaborative support to the other departments' project teams. To ensure that these services are provided in an effective, efficient, and systemic manner, the Infrastructure Project Management unit coordinates the work efforts of the technical resources and subject matter experts for department projects, following the shared project and process management methods that are common to all Office of the Chief Technology Officer project teams. The unit manages the service contracts and vendor relationships during the life of the project. The Infrastructure Project Management unit ensures that project documentation is kept in an accessible place and that quality assurance processes are created, documented and communicated for maximum efficiency.

Trends and Accomplishments

The continuing rapid advancement of technology requires staff to research new and emerging technologies, to work continuously with technology users in reassessing which technologies best meet instructional and administrative needs, and to plan how to modernize or replace aging and obsolete equipment and software. *Our Call to Action: Pursuit of Excellence* calls for the provision of a technology-rich environment that gives instructional leaders powerful tools to determine priorities and to measure success.

Recent departmental accomplishments include the deployment of a comprehensive user identity management system, which automates user account creations and deletions, as well as handles exceptions using workflows, manages password policies, provides compliance with audit requirements and provides users with password self-service. By automating these complicated tasks, this system minimizes human errors in managing user accounts and provides necessary audit reports. In addition to the initial creation of access privileges, this system helps to dynamically adapt to changes in business requirements.

In addition, the department also provided large-scale printing services for both student and business systems, including approximately 138,000 report cards per reporting period and 1,500 employee paychecks and 22,000 timesheets per pay period (employee pay stubs are available electronically, eliminating the need for pay stub printing for employees using direct deposit). The Data Center staff takes great pride in continuing to meet every deadline for all large printing jobs.

The Systems Administration unit implemented a highly available storage area network, which provides necessary disk storage for the large databases used to help make educational plans for higher student achievement. Implementation of the server consolidation program continued through FY 2010, including the expansion of a virtual server environment to reduce the number of production and test servers. This program seeks to reduce the number of disparate hardware servers by consolidating systems on more reliable and consistently managed hardware.

The department upgraded the MCPS e-mail system to Exchange 2007 to take advantage of increased protection of data for security and to optimize our investment for future growth. This upgrade also provides more powerful Web access so users can access documents in their work location from remote locations.

The department implemented a large scale IPS/IDS (intrusion prevention system and intrusion detection system) system which protects network devices and endpoints and the information traveling across the network. In addition, a network access control system was implemented to protect the network while users are connected remotely.

In FY 2010, databases for student systems applications, the electronic grading system, and the myMCPS portal were upgraded to the latest and most efficient versions that allow for faster access to data for students and staff.

The growing school and office reliance on wired and wireless networks requires reliable LAN/WAN connections. During 2010, the department implemented a wireless mobile cart solution to provide network access to 109 classrooms across five elementary schools.

The MCPS WAN continues to carry additional Internet Protocol (IP) services throughout MCPS with the addition of IP-based building-wide security cameras in 13 secondary schools, 38 visitor-management systems in elementary and middle schools, and introduced IP-based building access control systems in 52 elementary schools in FY 2010. The information provided by these systems traverses the MCPS LAN/WAN providing critical information to both MCPS safety and security staff and the Montgomery County Police.

Using virtual private network (VPN) technology with Internet connections, the Telecommunications unit was able to provide redundancy, improve reliability and increase bandwidth for 5 elementary schools. Montgomery County Fiber-Net installations continued in FY 2010 with installations

completed at 5 additional elementary schools. Internet availability continued to be over 99 percent.

Telephone systems were installed on time as scheduled in seven elementary schools and two middle schools. Nearly 2,000 work requests for moves, additions, and changes for schools and administrative offices were completed in FY 2010. The Telecommunications unit continued its management of the cell phone and data device programs, refreshing phone equipment for emergency phones in portable classrooms and school emergency kits.

The Telecommunications unit proactively replaced end-of-life network switches in 32 schools and offices and the network core, preparing MCPS to participate in future cutting-edge technology solutions.

Major Mandates

- The federal *No Child Left Behind Act of 2001* and the state's Bridge to Excellence in Public Schools Act mandate data collection and distribution that require up-to-date infrastructure and equipment in all schools, as well as access to system information.
- *Our Call to Action: Pursuit of Excellence* strategies require up-to-date infrastructure and central services.
- Expectations of the Maryland Core Learning Goals and alignment with the Maryland High School Assessments and Maryland School Assessments require a modern infrastructure for delivery of online tests and courses.
- The MCPS Board of Education Policy IGS, *Educational Technology*, requires that all students and staff members have easy, equitable access to information and communication technologies.
- The Maryland Educational Technology Plan for the New Millennium: 2007–2012 requires that schools be provided with networks, hardware/software, and technical services that support student and staff use of electronic information and communication resources in classrooms, media centers, and offices.

Strategies

- Control and manage user access rights and implement user account provisioning using the most cost effective and efficient methods.
- Develop a converged telecommunications strategic plan based on industry standards to guide MCPS in the modernization and expansion of its telecommunications system including telephony and data.
- Consistently evaluate database use and performance upgrading operating systems and hardware and software when necessary.
- Monitor performance of the WAN, school servers, and Internet connectivity and ensure staff or vendors respond promptly to any problems.
- Manage/maintain a sound virtual server testing environment for use by multiple systems.

Department of Infrastructure and Operations—446/431/432/433/436/447/448/451/452/453/

Cary Kuhar, Director II

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- Expand the virtual server environment to the production systems to more efficiently utilize servers for multiple applications.
- Monitor the reliability, timeliness, and accuracy of enterprise computer products and services.
- Maintain up-to-date recommended firmware and software release levels for security and performance for all servers.
- Work with MCPS staff and consultants to identify, develop, and implement industry-accepted network management procedures, best practices, and technical solutions.
- Monitor, plan, and implement improvements for enterprise data storage systems to support the production server environment.
- Maintain consistent environmental controls in the Data Center.
- Adhere to systematic change control processes to ensure high quality systems.
- Maintain communication with school staffs regarding relocations and requirements for voice and data connections and computer setups.
- Plan for a modernized central computer facility that meets industry standards.
- Provide excellent customer service to all technology users by assisting in data migration needs, providing efficient turnaround on user requests, and planning for the unexpected.
- Facilitate and support server configuration management for optimum performance.

Performance Measures

Performance Measure: Percent of uptime for the WAN

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
99.80%	99.85%	99.90%

Explanation: A measure of availability of switches, routers, and vendor supplied lines that provide access to schools, offices, and the ISP connection.

Performance Measure: Percentage of uptime for e-mail system.

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
99.9%	99.9%	99.9%

Explanation: This measure indicates the amount of time e-mail is available to end users, other than regularly scheduled maintenance hours.

Budget Explanation

Department of Infrastructure and Operations—446/433/447/448/451/452/453

The FY 2011 request for this department is \$6,661,627, an increase of \$13,779 from the current FY 2010 budget of \$6,647,848. An explanation of this change follows.

Continuing Salary Costs—\$13,779

There is an increase of \$13,779 in continuing salary costs to reflect step or longevity increases for current employees.

Realignments—\$0

This budget includes various budget neutral realignments for FY 2011. There are realignments from lease/purchase (\$258,174), software (\$122,355), dues, registrations and fees (\$443), temporary part-time salaries (\$2,381), and supplies (\$27,950) to fund an additional \$411,303 for contractual maintenance.

Dept of Infrastructure & Ops - 446/431/432/433/436/447/448/451/452/453

Cary Kuhar, Director II

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	35,500	35,500	35,500	35,500	
Position Salaries	\$2,885,716	\$3,069,077	\$3,069,077	\$3,082,856	\$13,779
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		32,110	32,110	29,729	(2,381)
Other		34,328	34,328	34,328	
Subtotal Other Salaries	30,518	66,438	66,438	64,057	(2,381)
Total Salaries & Wages	2,916,234	3,135,515	3,135,515	3,146,913	11,398
02 Contractual Services					
Consultants		61,500	61,500	61,500	
Other Contractual		1,502,844	1,502,844	1,914,147	411,303
Total Contractual Services	1,337,293	1,564,344	1,564,344	1,975,647	411,303
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		5,566	5,566	4,600	(966)
Other Supplies & Materials		473,348	473,348	324,009	(149,339)
Total Supplies & Materials	461,071	478,914	478,914	328,609	(150,305)
04 Other					
Local Travel		4,328	4,328	4,328	
Staff Development		10,494	10,494	10,051	(443)
Insurance & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	28,304	14,822	14,822	14,379	(443)
05 Equipment					
Leased Equipment		1,454,253	1,454,253	1,196,079	(258,174)
Other Equipment					
Total Equipment	1,244,597	1,454,253	1,454,253	1,196,079	(258,174)
Grand Total	<u>\$5,987,499</u>	<u>\$6,647,848</u>	<u>\$6,647,848</u>	<u>\$6,661,627</u>	<u>\$13,779</u>

Dept of Infrastructure & Ops - 446/431/432/433/447/448/436/451/452/453

Cary Kuhar, Director II

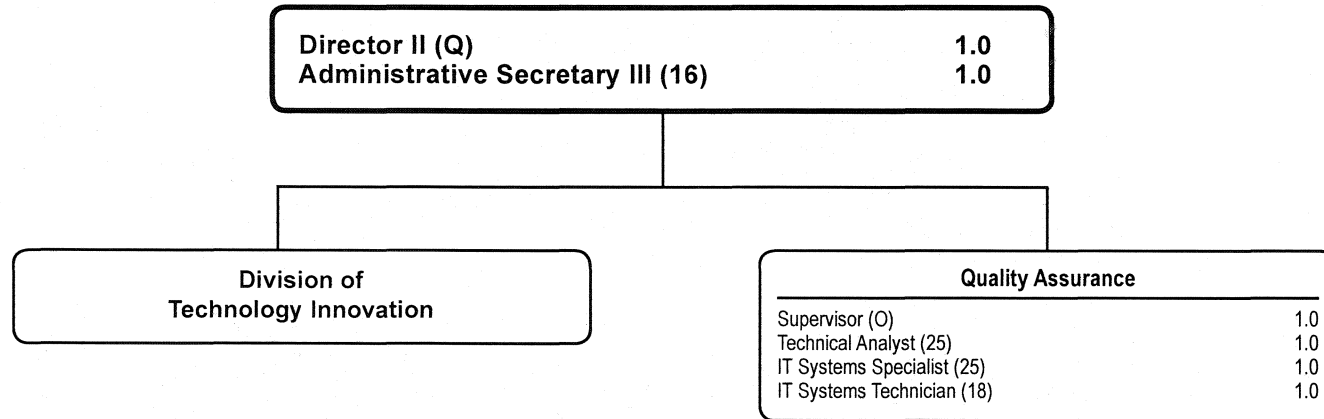
CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
446 Department of Infrastructure & Ops							
1	Q Director II		1.000	1.000	1.000	1.000	
1	16 Administrative Secretary III				1.000	1.000	
1	14 Administrative Secretary I		1.000	1.000			
Subtotal			2.000	2.000	2.000	2.000	
433 Telecommunications Systems							
11	K Supervisor		1.000	1.000	1.000	1.000	
1	25 IT Systems Specialist		2.000	2.000	2.000	2.000	
11	25 IT Systems Specialist		4.000	4.000	4.000	4.000	
11	14 IT Services Technical Asst		1.000	1.000	1.000	1.000	
Subtotal			8.000	8.000	8.000	8.000	
447 Database Administration							
1	O Supervisor		1.000	1.000			
1	K Supervisor				1.000	1.000	
1	27 Database Analyst III		2.000	2.000	2.000	2.000	
1	25 Database Administrator II		2.000	2.000	2.000	2.000	
Subtotal			5.000	5.000	5.000	5.000	
448 Data Center							
1	K Supervisor		1.000	1.000	1.000	1.000	
1	H Computer Operations Mgr		1.000	1.000	1.000	1.000	
1	16 Computer Operator II Shift 2		1.000	1.000	1.000	1.000	
1	16 Computer Operator II Shift 3		1.000	1.000	1.000	1.000	
1	14 Computer Operator I Shift 1		2.000	2.000	2.000	2.000	
1	14 Computer Operator I Shift 2		1.000	1.000	1.000	1.000	
1	14 Computer Operator I Shift 3		1.000	1.000	1.000	1.000	
Subtotal			8.000	8.000	8.000	8.000	
451 Directory Services							
1	27 IT Systems Engineer		1.000	1.000	1.000	1.000	
1	25 IT Systems Specialist		2.000	2.000	2.000	2.000	
1	13 Data Operator I		.500	.500	.500	.500	
Subtotal			3.500	3.500	3.500	3.500	
452 Systems Administration							
1	27 Sr Client Server Engineer		2.000	2.000	2.000	2.000	
1	27 IT Systems Engineer		3.000	3.000	3.000	3.000	
11	25 IT Systems Specialist		2.000	2.000	2.000	2.000	
Subtotal			7.000	7.000	7.000	7.000	
453 Infrastructure Project Management							
1	K Supervisor		1.000	1.000	1.000	1.000	

Dept of Infrastructure & Ops - 446/431/432/433/447/448/436/451/452/453

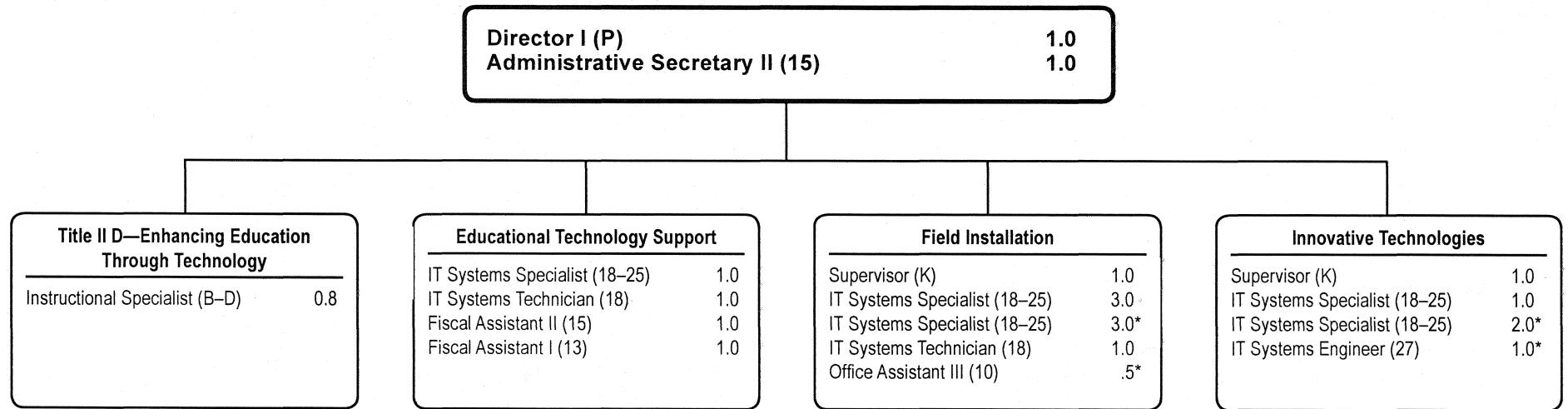
Cary Kuhar, Director II

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
	453 Infrastructure Project Management						
1	27 IT Systems Engineer		1.000	1.000	1.000	1.000	
	Subtotal		2.000	2.000	2.000	2.000	
	Total Positions		35.500	35.500	35.500	35.500	

Department of Strategic Project Management and Planning



Division of Technology Innovation



Chapter 8 – 26

F.T.E. Positions 13.8

(*In addition, there are 6.5 Capital Budget positions shown on this chart)

Mission

The mission of the Department of Strategic Project Management and Planning is to implement innovative 21st Century technologies that support students' active engagement in learning, integrate effective practices for project and process management and quality assurance, and create a strategic plan for the use of technology in teaching and learning.

Major Functions

The Department of Strategic Project Management and Planning coordinates the functions and operations of the Division of Technology Innovation and oversees the use of effective project management and quality assurance processes and tools. Department staff provides the knowledge, processes, and resources needed to consistently meet customer expectations for high quality, reliable technology solutions.

The Division of Technology Innovation consists of three units—Field Installation, Educational Technology Support, and Innovative Technologies.

The Field Installation Unit implements 21st century technologies in MCPS classrooms. To update technologies in schools through the Technology Modernization (Tech Mod) Program, staff in this unit gathers requirements from stakeholders, works with school staff to plan the integration of hardware and software in schools, procures and installs the technology, and ensures its readiness at the opening of the school year. The unit oversees a program to refurbish computers in schools where technology is four years old in response to the change from a four-year to a five-year replacement cycle that was put in place temporarily to address the fiscal crisis. Staff also manages the donation of older technology to community groups. Additionally, the unit collects online data for updating and maintaining the asset management system and supports centralized distribution of software updates, service packs, and virus definition files.

The Educational Technology Support Unit is responsible for the installation of interactive white board technologies and the management of telecommunication and educational technology programs. Staff coordinates the installation of interactive white board technology meetings with principals and teachers to redesign classrooms for 21st century instructional practices. Staff applies for rebates for eligible telecommunications, internal connection, and Internet-related costs under the Schools and Libraries Universal Service E-Rate program funded under the Telecommunications Act of 1996. The unit also manages the allocation and grants under Title II-D Enhancing Education Through Technology (Educational Technology) that help support the school system's technology efforts, including student, teacher, and school administrator technology literacy. A position funded under the Title II-D Educational Technology allocation coordinates the integration of the critical thinking model into the 21st Century Classroom initiative.

The Innovative Technologies Unit conducts research and development for evolving and emerging technologies. Unit

members continuously collaborate with schools and offices to understand interests and needs. The unit also cultivates strategic partnerships with vendors who focus on improving technology products, services, prices, quality, and on-time delivery. The unit oversees the testing of products and configurations prior to deployment to schools to ensure product reliability and effective ongoing operations in every school. Staff also keeps abreast of emerging technology trends and products and assesses their applicability in the educational environment. Educationally appropriate products are evaluated to determine if the product meets identified needs, and high-level tests are performed to assess compatibility with the MCPS technology infrastructure. Professional staff in this unit assists in defining the professional development needed to integrate interactive classroom technologies into teaching and learning.

Staff in this division also collaborates with the schools and other MCPS offices and departments to create a strategic plan for the use of technology in teaching and learning. The current plan, Educational Technology for 21st Century Learning, describes how MCPS will utilize technology in schools and classrooms through 2014. The FY 2009–2014 strategic technology plan outlines agreed upon technology needs and affordable solutions to infuse technology into instruction, student learning, and business processes. This plan is aligned with the Maryland Educational Technology Plan for the New Millennium: 2007–2012 and *Our Call to Action: Pursuit of Excellence*.

The Department of Strategic Project Management and Planning oversees the use of effective project and process management tools that lead to successful results. This is accomplished by identifying and integrating effective practices, implementing and realizing a strong customer engagement model, and managing the project portfolio to deliver the right solutions at the right time. Staff provides skills and expertise in project and process management, change management, customer communication, product testing, effective team management, and other essential practices based on the nature of the work. The Office of the Chief Technology Officer is committed to delivering high-quality solutions that meet or exceed customer expectations. Among the practices that lead to successfully accomplishing this commitment are quality assurance and testing. Department staff provides leadership in the use of quality assurance tools and techniques that facilitate alignment of customer needs with technology solutions. Additionally, through the disciplines of technology testing and quality assurance, staff guides the planning and implementation of test protocols for products and services to verify their accuracy, performance, and usability in support of high-quality solutions.

The department also is responsible for operational process improvement. This is accomplished by incorporating continuous improvement processes for performance excellence, such as Malcolm Baldrige Educational Criteria for Performance Excellence and facilitating the use of process improvement methodologies.

Trends and Accomplishments

Students, teachers, and the community have an expectation that technology solutions will be available to meet their information and communication needs. The ability to deploy new systems rapidly and the expectation that systems will be user-friendly and safe have a major impact on this department and its planning. The need to retool educational technology is accelerating and customers rightly expect high-quality, reliable solutions. The demand for faster, better, and cheaper solutions that meet customer expectations requires exceptional skill in managing projects. The partnership of educational and technical experts to improve project outcomes requires the creation and use of a common language for the planning, execution, and delivery of projects. The challenge for the school system is how to use students' interest in technology to engage them in rigorous and relevant learning experiences. Innovative technologies, such as interactive white boards, student response systems, and expanded wireless capabilities, now focus on engaging students while developing critical-thinking and problem-solving skills.

Other trends include managing relationships with the increasing number of vendors that are offering technology products and services and building strong partnerships to meet the school system's educational and business needs. In addition, while most vendors will agree to provide school districts with special discount rates, implementing the individualized payment schedules included in these agreements is typically a challenge for vendor billing departments. This increases the need for staff in this department to analyze technology and telecommunication invoices to make sure they reflect the agreed-upon pricing.

In FY 2010, the Department of Strategic Project Management and Planning implemented innovative technology solutions for the 21st century classroom, provided leadership for the design and implementation of online curriculum delivery, and expanded project and process management practices in collaboration with MCPS-wide initiatives.

The Division of Technology Innovation supported the use of 21st Century technologies to transform teaching and learning. Using the stimulus funding set aside for universal design for learning, interactive white boards, student response systems, and netbook mobile carts were installed in all classrooms in four elementary schools. The division also supported the administration of the Maryland Measures of Student, Teacher, and School Administrator Literacy Assessment to gather baseline data.

The Technology Modernization program, which replaces four-year old computers in schools, was delayed one year due to the fiscal crisis, creating a five-year replacement cycle through FY 2012. A project was initiated that refurbished and repaired 7,109 computers in the 42 schools that had been anticipating the replacement of their four-year old computers in FY 2010. These schools included 2 high schools, 14 middle schools, and 26 elementary schools. Also, the division supported the installation of technology for five schools

with construction projects, including one new school, three modernized schools, and one school with an addition.

Division staff supported the federal application processes for E-Rate telecommunication rebates totaling approximately \$1.8 million for FY 2009.

The division applied for and received funding to lead a competitive grant under Title II-D—Enhancing Education Through Technology under the *No Child Left Behind Act*. This grant funds a state-wide consortium for administering and analyzing results of the Maryland Measures for Student, Teacher, and School Administrator Technology Literacy. Division staff, funded through the Title II-D Educational Technology allocation, supported the critical thinking program in seven participating schools.

Project management leadership for the Online Learning Community was provided by staff in the Department of Strategic Project Management and Planning. The first phase of this effort resulted in the delivery of the Curriculum Archive, which provides staff with access to curriculum documents for professional use from any Internet-accessible location, documents organized by grade, subject or course, contents searchable by key word, and materials in PDF format and in Microsoft Word, where available, to allow for adaptation of student materials, as needed. The user community has embraced this powerful tool positively, remarking consistently on how intuitive and easy it is to use. This year the Integrated Kindergarten Curriculum became available through the myMCPS portal and was quickly adopted by instructional staff. The second phase continued the development of the online interactive learning community, creating an environment of collaboration and communication, user-friendly features, job-embedded training, and integrated curriculum and professional development resources.

The OCTO professional learning community for project managers was created to serve as the process team for continuously improving project management practices. The goal is to identify and implement repeatable best practices that provide value in driving results that meet or exceed customer expectations. Use of project management and quality assurance best practices helped facilitate improved performance and results in the delivery of technology solutions and services. The process for testing major systems was reviewed and enhanced resulting in a significant increase in product quality and reliability, as well as improved efficiency and effectiveness of project staff and resources.

A cross-functional project team, led by staff from the Department of Strategic Project Management and Planning, developed five courses to provide a common language and basic skill set for delivering projects in an educational setting. The courses were offered three times throughout the year for staff who lead projects, as well as for team members and subject matter experts. Course materials continue to be available for use with individual teams.

Staff actively participated in the North Star program with the American Productivity and Quality Center (APQC) focused

on integrating process management practices in education across the county.

Major Mandates

- *Our Call to Action: Pursuit of Excellence* identifies technology as a critical learning tool in schools. Access to and use of a variety of technological applications and services are needed to help provide an effective instructional program and create a positive work environment in a self-renewing organization. Technology initiatives include supporting the system of shared accountability, reorganizing the assets for school support, and broadening the concept of literacy.
- The MCPS Board of Education Policy IGS, *Educational Technology*, requires that staff and students be provided with easy, equitable access to technology tools.
- The Telecommunications Act of 1996 (Section 954h.B) and Federal Communications Commission Order 9-57 stipulate that requests for Universal Service Program discounts (E-Rate) must be based on an approved technology plan that includes clear goals and strategies for integrating telecommunications services and Internet access into the school district's educational program, a professional development strategy, needs assessment, sufficient budget for both acquisition and maintenance, and program evaluation.
- Programs funded through Title II-D Enhancing Education Through Technology, must be based on an approved technology plan, must comply with state and federal laws and regulations, and must ensure timely and meaningful consultation with nonpublic school officials during the design and implementation of programs.
- The Children's Internet Protection Act requires that school systems receiving funds from Title II or E-Rate discounts for Internet services have policies and use technology protection measures that address issues related to the safety and security of minors and adults while using the Internet and electronic communications.
- The Deleting Online Pr^edatators Act of 2006 requires schools and libraries receiving E-Rate universal service support to protect minors from commercial social networking websites and chat rooms.

Strategies

- Provide strategic leadership for project management and planning for all technology initiatives.
- Build staff capacity through training and mentoring in project management.
- Strengthen operational coherence and risk management through appropriate stakeholder governance.
- Improve project management by implementing industry standard best practices.
- Improve communication and collaboration by defining and adopting a customer engagement and relationship model.

- Model the use of Baldrige and process improvement methods for performance excellence and assessment of results to guide improvements.
- Collaborate with recognized business leaders and school districts to gain knowledge of best practices.
- Consult with education, business, community, and government groups to ensure programs and services are appropriate to prepare students for higher education and the workplace of the 21st Century.
- Cultivate strategic partnerships with vendors that focus on improving product and service prices, quality and on-time delivery.
- Develop plans for providing technologies that engage students and encourage critical thinking and problem-solving skills in support of our rigorous curriculum.
- Create a multiyear technology road map identifying strategic plans for school-based and office software and hardware technologies, telecommunications, network operating systems, and support systems based on industry standards and instructional requirements.
- Collaborate with school staff to identify improvements in the implementation of the Tech Mod Program.
- Provide quality assurance by implementing industry standard best practices.
- Improve quality of delivered technologies by implementing industry standard best practices and tools.

Performance Measures

Performance Measure: The percent of key projects following the established project management guidelines.

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
88%	90%	95%

Explanation: This measure indicates the percentage of project teams that have adopted the project management guidelines, which reflects the use of industry standard best practices. Key projects to be included in this measure are identified annually by OCTO leadership.

Performance Measure: The percent of computers installed through the current year Technology Modernization program that are ready for use on the first day of school.

FY 2009 Actual	FY 2010 Estimate	FY 2011 Recommended
99.99%	*	100%

Explanation: A measure of the quality of technology modernization installation procedures and the timeliness of resolving operational problems.

**Replacements delayed for one year due to fiscal crisis.*

**Department of Strategic Project Management and Planning—421/425/
427/428/434/918/997**

Doreen M. Heath, Director II

240-632-6960

**Budget Explanation
Department of Strategic Project
Management and Planning—421**

The current FY 2010 budget for this department is changed from the budget adopted by the Board of Education on June 9, 2009. The change is a result of the realignment of \$76,686 to this budget to fund a 1.0 IT system specialist position from the Department of Information and Application Services.

The FY 2011 request for this department is \$692,516, an increase of \$10,913 from the current FY 2010 budget of \$681,603. An explanation of this change follows.

Continuing Salary Costs—\$10,913

There is an increase of \$10,913 in continuing salary costs to reflect step or longevity increases for current employees.

Realignments—\$0

There is a realignment of \$500 from contractual maintenance to support local travel.

**Budget Explanation
Division of Technology
Innovation—425/427/428/434**

The FY 2011 request for this division is \$1,159,215, an increase of \$38,210 from the current FY 2010 budget of \$1,121,005. An explanation of this change follows.

Continuing Salary Costs—\$38,210

There is an increase of \$38,210 in continuing salary costs to reflect step or longevity increases for current employees.

**Budget Explanation
Title II D—Enhancing Education
Through Technology Project—918**

The current FY 2010 budget for this project is changed from the budget adopted by the Board of Education on June 9, 2009. There is a reduction of \$22,069 for this grant program this year based on the actual amount received by the grantor. These funds are realigned to the budget for the Provision for Future Supported Projects.

The FY 2011 request for this department is \$154,242 a decrease of \$6,967 from the current FY 2010 budget of \$161,203. An explanation of this change follows.

Continuing Salary Costs—(\$6,961)

There is a decrease of \$6,961 in continuing salary costs. Step or longevity increases for current employees are offset by reductions for staff turnover.

Project's Funding History

Sources	FY 2010 Projected 7/1/09	FY 2010 Received 11/30/09	FY 2011 Projected 7/1/10
Federal	\$183,272	\$161,203	\$154,242
State			
Other			
County			
Total	\$183,272	\$161,203	\$154,242

Dept. of Strategic Project Management and Planning - 421/997

Doreen M. Heath, Director II

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	6.000	5.000	6.000	6.000	
Position Salaries	\$518,426	\$491,898	\$563,584	\$574,497	\$10,913
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries					
Total Salaries & Wages	518,426	491,898	563,584	574,497	10,913
02 Contractual Services					
Consultants					
Other Contractual		81,228	81,228	80,728	(500)
Total Contractual Services	33,510	81,228	81,228	80,728	(500)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		4,215	4,215	4,215	
Other Supplies & Materials		29,579	29,579	29,579	
Total Supplies & Materials	10,209	33,794	33,794	33,794	
04 Other					
Local Travel		1,200	1,200	1,700	500
Staff Development		1,797	1,797	1,797	
Insurance & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	7,505	2,997	2,997	3,497	500
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	\$569,650	\$609,917	\$681,603	\$692,516	\$10,913

Dept. of Strategic Project Management and Planning - 421/997

Doreen M. Heath, Director II

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
1	Q Director II		1.000	1.000	1.000	1.000	
1	O Supervisor		1.000	1.000	1.000	1.000	
1	25 IT Systems Specialist		1.000		1.000	1.000	
1	25 Technical Analyst		1.000	1.000	1.000	1.000	
1	18 IT Systems Technician		1.000	1.000	1.000	1.000	
1	16 Administrative Secretary III			1.000	1.000	1.000	
1	15 Administrative Secretary II		1.000				
Total Positions			6.000	5.000	6.000	6.000	

Division of Technology Innovation - 425/427/428/434

Melissa J. Woods, Director I

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	14,000	13,000	13,000	13,000	
Position Salaries	\$1,008,393	\$1,019,030	\$1,019,030	\$1,057,240	\$38,210
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries	9,996				
Total Salaries & Wages	1,018,389	1,019,030	1,019,030	1,057,240	38,210
02 Contractual Services					
Consultants					
Other Contractual		34,399	34,399	34,399	
Total Contractual Services	28,862	34,399	34,399	34,399	
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials		4,635	4,635	4,635	
Office		6,000	6,000	6,000	
Other Supplies & Materials		44,163	44,163	44,163	
Total Supplies & Materials	43,840	54,798	54,798	54,798	
04 Other					
Local Travel		10,430	10,430	10,430	
Staff Development		2,348	2,348	2,348	
Insurance & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	16,354	12,778	12,778	12,778	
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	<u>\$1,107,445</u>	<u>\$1,121,005</u>	<u>\$1,121,005</u>	<u>\$1,159,215</u>	<u>\$38,210</u>

Division of Technology Innovation - 425/427/428/434

Melissa J. Woods, Director I

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
	425 Division of Technology Innovation						
1	P Director I		1.000	1.000	1.000	1.000	
1	15 Administrative Secretary II			1.000	1.000	1.000	
1	14 Administrative Secretary I		1.000				
	Subtotal		2.000	2.000	2.000	2.000	
	427 Education Technology Support						
1	25 IT Systems Specialist					1.000	1.000
11	18 IT Systems Technician		1.000	1.000	1.000	1.000	
1	15 Fiscal Assistant II		1.000	1.000	1.000	1.000	
11	13 Fiscal Assistant I		1.000	1.000	1.000	1.000	
	Subtotal		3.000	3.000	3.000	4.000	1.000
	428 Innovative Technologies						
1	K Supervisor		1.000	1.000	1.000	1.000	
3	BD Instructional Specialist		1.000				
1	25 IT Systems Specialist		1.000	1.000	1.000	1.000	
	Subtotal		3.000	2.000	2.000	2.000	
	434 Field Installation						
3	K Supervisor		1.000	1.000	1.000	1.000	
1	25 IT Systems Specialist		4.000	4.000	4.000	3.000	(1.000)
1	18 IT Systems Technician		1.000	1.000	1.000	1.000	
	Subtotal		6.000	6.000	6.000	5.000	(1.000)
	Total Positions		14.000	13.000	13.000	13.000	

Title II D - Enhancing Education Through Technology - 918

Melissa J. Woods, Director I

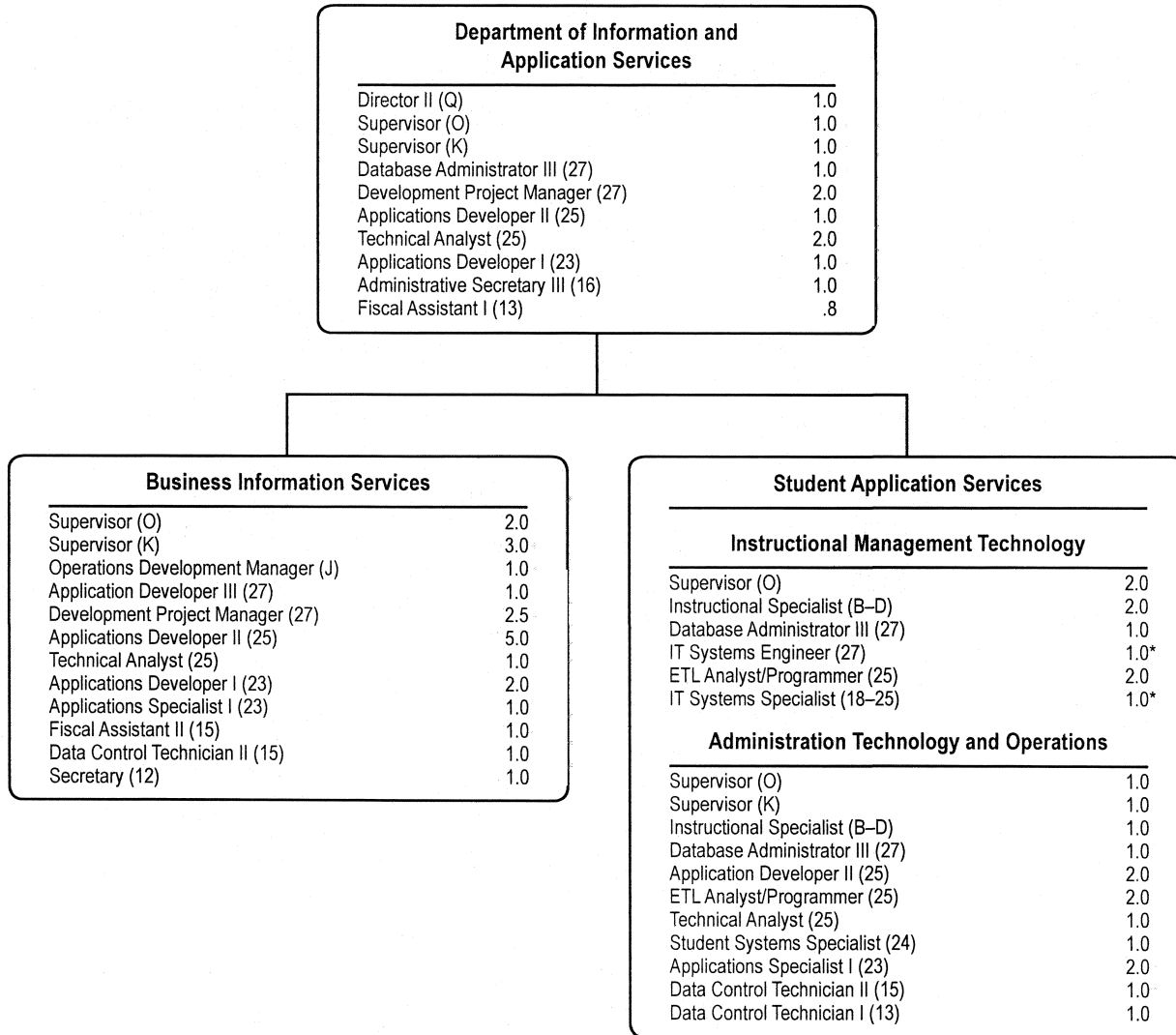
Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	1.000	.700	.800	.800	
Position Salaries	\$78,892	\$85,239	\$85,239	\$78,278	(\$6,961)
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time		9,900	9,900	9,900	
Supporting Services Part Time					
Other					
Subtotal Other Salaries	17,248	9,900	9,900	9,900	
Total Salaries & Wages	96,140	95,139	95,139	88,178	(6,961)
02 Contractual Services					
Consultants					
Other Contractual		24,183	2,114	2,114	
Total Contractual Services	112,375	24,183	2,114	2,114	
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials		15,000	15,000	15,000	
Office		10,905	10,905	10,905	
Other Supplies & Materials					
Total Supplies & Materials	18,907	25,905	25,905	25,905	
04 Other					
Local Travel		2,460	2,460	2,460	
Staff Development					
Insurance & Employee Benefits		31,920	31,920	31,920	
Utilities					
Miscellaneous		3,665	3,665	3,665	
Total Other	51,892	38,045	38,045	38,045	
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	<u>\$279,314</u>	<u>\$183,272</u>	<u>\$161,203</u>	<u>\$154,242</u>	<u>(\$6,961)</u>

Title II D - Enhancing Education Though Technology - 918

Melissa J. Woods, Director I

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
2	BD Instructional Specialist					.800	.800
3	BD Instructional Specialist		1.000	.700	.800		(.800)
	Total Positions		1.000	.700	.800	.800	

Department of Information and Application Services



F.T.E. Positions 54.3

(*In addition, there are 2.0 Capital Budget positions shown on this chart and a 0.5 position is charged to the Trust Fund in Chapter 7, Department of Financial Services.)

Mission

The mission of the Department of Information and Application Services (DIAS) is to plan, implement, and support quality technology solutions to facilitate data collection, management, analysis, and reporting in support of *Our Call to Action: Pursuit of Excellence*.

Major Functions

DIAS collaborates with all offices, schools, and local government agencies to promote and support Montgomery County Public Schools (MCPS) and the initiatives of the Chief Technology Officer by developing, implementing, and continuously improving MCPS knowledge management solutions. These solutions allow schools and offices to collect essential data; make decisions and plans based on data analysis; disseminate accurate, current, and timely information; and conduct efficient daily management and support operations.

The department empowers offices and schools by provisioning systems which allow them to manage resources and operations by making data use more effective for decision making and improvement. Some of the systems used to manage student administrative and achievement data include the Online Administrative Student Information System (OASIS), the MCPS data warehouse, a special education services tracking system, the Online Achievement and Reporting System (OARS) which is comprised of an electronic grade book and a classroom to home communication solution, as well as electronic assessment systems to support timely delivery and reporting of assessments aligned to MCPS and Maryland state standards. Office systems used to manage the operational aspects of the entire school system include the Human Resource Information System (HRIS), Professional Development Online (PDO), Benefits Workstation used to administer and manage employee benefits, the Applicant Tracking System (ATS) which facilitates the process of hiring staff, the Financial Management System (FMS), the Transportation Information Management System (TIMS), and Connect-ED which is used by schools and the central office to effectively and efficiently communicate important information to students, staff, parents, and the community. Data from these student and business applications, in addition to other information services, are provisioned via the myMCPS enterprise portal which provides end users with a one-stop shop for the information they need to effectively perform their work.

Based on ongoing customer requirements and priorities, the department designs, develops or purchases, and implements new system-wide, office-based and school-based administrative databases and applications. Staff provision enhancements to information systems as mandated by state and federal regulations or deemed necessary by MCPS. DIAS works with software vendors and staff in schools and offices to establish, operate, maintain, and enhance the delivery of information and decision support systems. Functions include the development, implementation, and maintenance of software systems that may include components for data collection, data integration, complex rules-based workflow, secure Web publication, and on-demand reporting.

The myMCPS portal is designed to deliver a personalized user experience based on a user's role and responsibilities in the school system. The portal facilitates activities as team and peer group communication and collaboration; provides access to role-specific applications, data warehouse dashboards and reports, and information services including the Curriculum Archive, OASIS, teacher and student attendance data, MCPS information services—the Bulletin, emergency announcements, and social networking constructs such as wikis, discussion boards, and micro-blogs. OASIS is the source system for managing all student administrative information including enrollment, attendance, report cards and transcripts, scheduling, and course management. OASIS provides an easy and accurate method to collect student administrative data through the development of user-friendly applications and the procurement of industry-leading software. OARS is composed of an enterprise electronic grade book to facilitate grading and reporting activities and policy alignment across the district and a classroom-to-home parent outreach component to securely communicate individual student achievement information from teachers to parents. The MCPS data warehouse system, which organizes data from multiple sources, provides a breadth of current and historical data and tools to support both detailed and summary data analysis and strategic decision-making. HRIS integrates personnel, payroll, and employee benefits functions that allow for effective management of information and resources. FMS integrates supply chain, finance, and budgeting functions. It adds value to overall business operations by providing accurate, timely, comprehensive, and accessible information; and by supporting data-driven decision-making and accountability. FMS also streamlines business processes and provides flexibility, adaptability, and reliability. ATS is a web-based solution that automates the hiring process for MCPS-based position vacancies. These student and business solutions enable MCPS to use information resources effectively for analyzing, planning, and monitoring organizational accountability to parents, students, staff, and the citizens of Montgomery County.

Trends and Accomplishments

To ensure that MCPS maintains its status as a world-class school system, DIAS must continue to expand and enhance the usefulness of key knowledge management systems, including identifying, developing, and implementing industry leading software solutions that best meet the requirements of schools and offices. The prevalence of social networking structures underpins important technology decisions as MCPS works to provide solutions that meet or exceed the expectations of 21st century learners and educators.

The implementation of myMCPS, an enterprise portal which provides MCPS staff with access to services based on their role, is a major step towards simplifying access to key information and applications that help staff work more effectively and efficiently. The myMCPS portal has been engineered as a social network to facilitate collaboration among staff, students, and parents to augment the continuum of teaching

and learning at MCPS. By concentrating work efforts in a single tool that delivers rich, role-specific content to all members based on best practices and a real-time input and feedback loop, myMCPS streamlines processes previously accomplished by accessing and mastering multiple systems, and also accelerates the communication of ideas and results across groups, further extending the professional learning community beyond previous perceived boundaries.

The elementary school (ES) OARS project has expanded to include Grades 4 and 5 in the 25 selected schools. ES OARS has been updated allowing teachers to use newly established measurement topics for grading and reporting. A new standards-based report card has been developed to reflect revised measurement topics in Grades 1 through 3, and new measurement topics for Grades 4 and 5.

OASIS received a major upgrade with the implementation of the Special Education Individualized Education Program (IEP) module. This solution replaces the previous electronic IEP management system and enhances the previous system and associated processes by integrating IEP development tasks into the same system that is used to manage all other system administrative information including information on other services and accommodations that a student receives, enrollment history, and assessment information. This upgrade will greatly increase the efficiency of managing the special education process for families, schools, and central services administrators.

The implementation of ATS enables the electronic handling of MCPS recruitment needs from posting positions to hiring. It serves both internal and external applicants. This system provides for efficiency and is fully compliant with the Office of Federal Contract Compliance Programs, Uniform Guidelines on Employee Selection Procedures, and Equal Employment Opportunity guidelines. ATS integrates with the HRIS system and Fortis Document Management System.

New features within HRIS include the roll out of Lawson's portal for users to have web-access to HRIS and the development of new workflows using Lawson's Process Flow Integrator (PFI). The PFI enables MCPS to quickly develop complex integrations with other systems and to automate processes increasing the efficiency of Human Resources Office (HRO) and Employee and Retirement Services Center staff.

The implementation of the web-based solution Human Resources Online (HRO) automates and continuously improves the development and management of Human Resources processes and facilitates efficient transactional integration between personnel-based systems. Integration between HRO and the myMCPS portal will enable staff to manage their personnel data and automate former paper-based transactions.

Major Mandates

- The federal *No Child Left Behind Act of 2001* and the state's Bridge to Excellence in Public Schools Act mandate data collection and distribution.
- *Our Call to Action: Pursuit of Excellence* requires the continuous improvement of all school system processes and services and the provision of appropriate staff training.
- The MCPS Board of Education Policy IGS, *Educational Technology*, requires that all staff have easy, equitable access to appropriate information and communication technologies.
- The Maryland Education Technology Plan for the New Millennium: 2007–2012 requires that administrative applications for management and support of schools be provided and maintained.
- *Our Call to Action: Pursuit of Excellence* requires the collection and reporting of data on student and school performance.
- The Maryland State House of Representatives, House Bill 841, Montgomery County Public Schools - Funding Accountability and Transparency Act MC 930-09, requires that MCPS develops and operates a Web site that includes information on Board of Education payments.

Strategies

- Collaborate with other offices and units to continuously improve processes, services, and information technology systems.
- Collaborate with the divisions of Technology Innovation and Technology Support and Technology Consulting and Communications to provide support for schools and offices utilizing administrative applications, including communication, staff training, and technical support.
- Collaborate with the Department of Infrastructure and Operations and the Division of Technology Support to assess capability and plan for infrastructure readiness.
- Enhance HRIS capabilities to meet analysis and reporting requirements of MCPS and external agencies and provide self-service capabilities in personnel, payroll, and benefits functions that give employees access to identified personal data.
- Enhance student system capabilities and the student database to meet end-user needs and the analysis and reporting requirements of *Our Call to Action: Pursuit of Excellence*.
- Provide staff development opportunities to ensure that staff has the skills and knowledge to implement planned information technology systems.
- Assess and examine new and emerging technologies to determine appropriateness.
- Increase the amount of information and power of reporting tools available to users.

Performance Measures

Performance Measure: Percentage of users satisfied with the customer service provided by the department.

FY 2009	FY 2010	FY 2011
Actual	Estimate	Recommended
75%	90%	95%

Explanation: This is a measure of customer satisfaction with DIAS staff service.

Performance Measure: The percentage of schools using the portal to monitor student performance.

FY 2009	FY 2010	FY 2011
Actual	Estimate	Recommended
25%	100%	100%

Explanation: This measure indicates the percentage of schools that access the data warehouse on a regular basis to monitor student performance and achievement. This gives an indication of the usefulness of the data in the system and the usability of the system itself.

Performance Measure: The percentage of stakeholder-requested enhancements implemented for enterprise systems.

FY 2009	FY 2010	FY 2011
Actual	Estimate	Recommended
85%	90%	95%

Explanation: This measure indicates the percentage of user-requested enhancements that are implemented once approved by a recognized advisory group.

**Budget Explanation
Department of Information and
Application Services—445/426/442/443**

The current FY 2010 budget for this department is changed from the budget adopted by the Board of Education on June 9, 2009. The change is a result of the realignment of \$123,438 to this budget from the budget of the IDEA-Early Intervening Services Project. Also, there is a realignment of \$76,686 from this budget to the Department of Strategic Project Management and Planning to fund a 1.0 IT system specialist position.

The FY 2011 request for this department is \$10,896,327, an increase of \$56,866 from the current FY 2010 budget of \$10,839,461. An explanation of this change follows.

Continuing Salary Costs—(\$14,820)

There is a decrease of \$14,820 in continuing salary costs. Step or longevity increases for current employees are offset by reductions for staff turnover.

Realignments—\$71,686

There are various realignments within this budget. There are realignments decreasing contractual maintenance by \$460,048, contractual services by \$129,665, and equipment by \$225,015 to support consultants for \$839,248 and temporary part-time salaries for \$47,366. Also, there is a realignment of \$71,686 to this budget from the budget of the Office of Chief Technology Officer.

Department of Information & Application Svcs - 445/426/442/443/444

Elton Stokes, Director II

Description	FY 2009 Actual	FY 2010 Budget	FY 2010 Current	FY 2011 Request	FY 2011 Change
01 Salaries & Wages					
Total Positions (FTE)	55.300	54.300	54.300	54.300	
Position Salaries	\$5,373,059	\$5,276,559	\$5,276,559	\$5,261,739	(\$14,820)
Other Salaries					
Supplemental Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		340,900	269,214	316,580	47,366
Other					
Subtotal Other Salaries	257,164	340,900	269,214	316,580	47,366
Total Salaries & Wages	5,630,223	5,617,459	5,545,773	5,578,319	32,546
02 Contractual Services					
Consultants		443,945	443,945	1,438,193	994,248
Other Contractual		4,385,445	4,508,883	3,764,170	(744,713)
Total Contractual Services	5,310,623	4,829,390	4,952,828	5,202,363	249,535
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		11,650	11,650	11,650	
Other Supplies & Materials		7,600	7,600	7,600	
Total Supplies & Materials	55,094	19,250	19,250	19,250	
04 Other					
Local Travel		7,501	7,501	7,501	
Staff Development					
Insurance & Employee Benefits					
Utilities					
Miscellaneous		55,908	55,908	55,908	
Total Other	54,679	63,409	63,409	63,409	
05 Equipment					
Leased Equipment		250,148	250,148	24,933	(225,215)
Other Equipment		8,053	8,053	8,053	
Total Equipment	37,653	258,201	258,201	32,986	(225,215)
Grand Total	\$11,088,272	\$10,787,709	\$10,839,461	\$10,896,327	\$56,866

Department of Information & Application Svcs - 445/426/444/442/443

Elton Stokes, Director II

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
445 Department of Information & Application Svcs							
1	Q Director II		1.000	1.000	1.000	1.000	
1	O Supervisor		1.000	1.000	1.000	1.000	
1	K Supervisor		1.000	1.000	1.000	1.000	
2	27 Database Administrator III		1.000	1.000	1.000	1.000	
1	27 Development Proj Manager		2.000	2.000	2.000	2.000	
1	25 Applications Developer II		1.000	1.000	1.000	1.000	
1	25 Technical Analyst		2.000	2.000	2.000	2.000	
1	23 Applications Developer I		1.000	1.000	1.000	1.000	
2	16 Administrative Secretary III			1.000	1.000	1.000	
2	15 Administrative Secretary II		1.000				
1	13 Fiscal Assistant I		.800	.800	.800	.800	
Subtotal			11.800	11.800	11.800	11.800	
426 Instructional Management Technology							
1	O Supervisor		2.000	2.000	2.000	2.000	
2	BD Instructional Specialist					2.000	2.000
3	BD Instructional Specialist		3.000	2.000	2.000		(2.000)
1	27 Database Administrator III		1.000	1.000	1.000	1.000	
2	25 ETL Analyst/Programmer		2.000	2.000	2.000	2.000	
Subtotal			8.000	7.000	7.000	7.000	
442 Administration Technology and Operations							
1	O Supervisor		1.000	1.000	1.000	1.000	
1	K Supervisor		1.000	1.000	1.000	1.000	
1	J Operations Development Manager		2.000	2.000			
2	BD Instructional Specialist					1.000	1.000
3	BD Instructional Specialist		1.000	1.000	1.000		(1.000)
2	27 Database Administrator III		1.000	1.000	1.000	1.000	
1	25 Applications Developer II				2.000	2.000	
2	25 ETL Analyst/Programmer		2.000	2.000	2.000	2.000	
1	25 Technical Analyst		1.000	1.000	1.000	1.000	
1	24 Student Systems Specialist		1.000	1.000	1.000	1.000	
1	23 Applications Specialist I		2.000	2.000	2.000	2.000	
1	15 Data Control Technician II		1.000	1.000	1.000	1.000	
1	13 Data Control Technician I		1.000	1.000	1.000	1.000	
Subtotal			14.000	14.000	14.000	14.000	
443 Business Information Services							
1	O Supervisor		2.000	2.000	2.000	2.000	
1	K Supervisor		3.000	3.000	3.000	3.000	
1	J Operations Development Manager		1.000	1.000	1.000	1.000	
1	27 Applications Developer III		1.000	1.000	1.000	1.000	
1	27 Development Proj Manager		2.500	2.500	2.500	2.500	

Department of Information & Application Svcs - 445/426/444/442/443

Elton Stokes, Director II

CAT	DESCRIPTION	10 Mon	FY 2009 ACTUAL	FY 2010 BUDGET	FY 2010 CURRENT	FY 2011 REQUEST	FY 2011 CHANGE
	443 Business Information Services						
1	25 Applications Developer II		5.000	5.000	5.000	5.000	
1	25 Technical Analyst		1.000	1.000	1.000	1.000	
1	23 Applications Developer I		2.000	2.000	2.000	2.000	
1	23 Applications Specialist I		1.000	1.000	1.000	1.000	
1	15 Fiscal Assistant II		1.000	1.000	1.000	1.000	
1	15 Data Control Technician II		1.000	1.000	1.000	1.000	
1	12 Secretary		1.000	1.000	1.000	1.000	
	Subtotal		21.500	21.500	21.500	21.500	
	Total Positions		55.300	54.300	54.300	54.300	