CHAPTER 7

Office of the Chief Technology Officer

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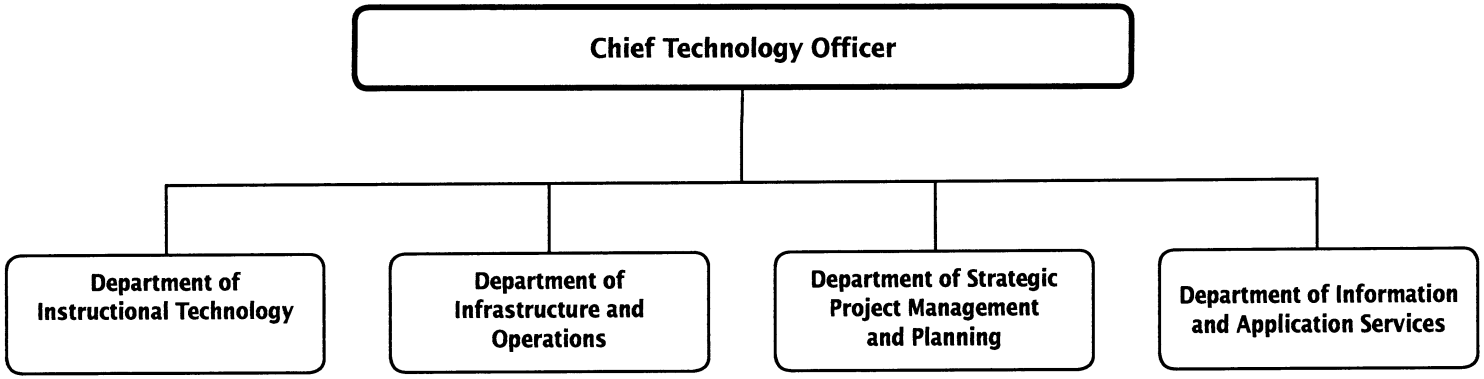
Office of the Chief Technology Officer
Summary of Resources
By Object of Expenditure

OBJECT OF EXPENDITURE	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	FY 2013 BUDGET	FY 2013 CHANGE
POSITIONS					
Administrative	15.000	15.000	15.000	15.000	
Business/Operations Admin.	14.000	13.000	13.000	13.000	
Professional	24.000	20.200	20.200	20.200	
Supporting Services	114.800	110.800	110.800	110.800	
TOTAL POSITIONS	**167.800**	**159.000**	**159.000**	**159.000**	
01 SALARIES & WAGES					
Administrative	$1,915,370	$1,958,917	$1,958,917	$1,963,451	$4,534
Business/Operations Admin.	1,343,406	1,372,748	1,372,748	1,416,093	43,345
Professional	2,352,057	2,052,015	2,052,015	2,134,381	82,366
Supporting Services	8,922,910	8,696,687	8,696,687	8,962,776	266,089
TOTAL POSITION DOLLARS	**14,533,743**	**14,080,367**	**14,080,367**	**14,476,701**	**396,334**
OTHER SALARIES					
Administrative					
Professional	81,550	31,016	31,016		(31,016)
Supporting Services	344,156	390,229	390,229	385,754	(4,475)
TOTAL OTHER SALARIES	**425,706**	**421,245**	**421,245**	**385,754**	**(35,491)**
TOTAL SALARIES AND WAGES	**14,959,449**	**14,501,612**	**14,501,612**	**14,862,455**	**360,843**
02 CONTRACTUAL SERVICES	**7,794,102**	**7,541,030**	**7,541,030**	**6,522,844**	**(1,018,186)**
03 SUPPLIES & MATERIALS	**496,853**	**457,101**	**457,101**	**394,881**	**(62,220)**
04 OTHER					
Local/Other Travel	61,841	86,969	86,969	84,232	(2,737)
Insur & Employee Benefits	153				
Utilities	3,281,172	3,036,955	3,036,955	3,036,955	
Miscellaneous	625,633	654,405	654,405	634,405	(20,000)
TOTAL OTHER	**3,968,799**	**3,778,329**	**3,778,329**	**3,755,592**	**(22,737)**
05 EQUIPMENT	**1,071,772**	**1,035,414**	**1,035,414**	**764,087**	**(271,327)**
GRAND TOTAL AMOUNTS	**$28,290,975**	**$27,313,486**	**$27,313,486**	**$26,299,859**	**($1,013,627)**

Office of the Chief Technology Officer—Overview



F.T.E. Positions 159.0

(*In addition, there are 18.5 Capital Budget positions, and a 0.5 Retirement Fund position shown in Department of Information and Application Services chart on Page 7-22)

Office of the Chief Technology Officer

Chief Technology Officer	1.0
Supervisor (O)	2.0
Assistant to the Associate Superintendent (N)	1.0
Instructional Specialist (B–D)	2.0
Fiscal Specialist II (25)	1.0
IT Systems Specialist (18-25)	4.0
Administrative Services Manager 1 (17)	1.0
Adminstrative Secretary III (16)	1.0
Fiscal Assistant III (16)	1.0

Division of
Technology Support

F.T.E. Positions 14.0

Office of the Chief Technology Officer—411

Sherwin Collette, Chief Technology Officer 301-279-3581

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 comprises four departments and one division—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; the Department of Instructional Technology, which supports excellence in teaching and learning, facilitates collaborative learning communities and supports operational excellence; and the Division of Technology Support (DTS), which provides technical assistance to schools and offices. 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 also oversees field installation, 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 Department of Information and Application Services 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 enterprisewide 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.

DTS provides onsite technical support to staff in schools and offices, Help Desk services, and customer relationship management. The responsibility of DTS closely aligns with the Technology Modernization Program (Tech Mod), funded through the Capital Improvements Program, that refreshes technology in schools and offices.

Trends and Accomplishments

Responding to the demands for accountability and a rigorous instructional program as set forth by the Board of Education and the 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 2011 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 2011, 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 district-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 Tech Mod 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 2013. Tech Mod replaced 10,022 computers, 192 file servers, and 1,500 printers in 62 schools, three alternative sites, and one special education school. The 192 file servers use 34 percent less energy than those being replaced. Staff continued to refurbish and repair 9,039 computers in 43 schools that had been anticipating the replacement of their four-year-old computers in FY 2012. These schools included 9 high schools, 11 middle schools, 22 elementary schools, and the Regional Institute for Children and Adolescents.

Office staff supported the federal application processes for E-Rate telecommunication rebates totaling approximately $2.1 million for FY 2010.

During FY 2011, 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 2011, 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) Online Achievement and Reporting System (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 and Development and Employee and Retiree Service 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.

In FY 2011, 98,502 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 102,371 in FY 2010. 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 2011, the office applied for and received funding to lead a competitive grant under Title II-D—Enhancing Education through Technology under NCLB. This grant funds a statewide 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 Maryland'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.
- 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 for students in the fundamental life skills curriculum; and the IDEA Proficiency Test for students in the English for Speakers of Other Languages 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, and 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.
- 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.
- Board of Education Policy IGS, Educational Technology, 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 MSAs 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 and 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 Chief Technology Officer—411

The FY 2013 request for this office is $5,688,046, a decrease of $623,180 from the current FY 2012 budget of $6,311,226. An explanation of this change follows

Continuing Salary Costs—$95,544
There is an increase of $95,544 for continuing salary costs to reflect step or longevity increases for current employees.

Realignment—($77,581)
There is a realignment of a 1.0 secretary position and $64,581, and $13,000 for program supplies from this office to the Division of Innovative Technologies.

Efficiencies and Reductions—($641,143)
There is a reduction of $570,274 budgeted for contractual maintenance for security software systems. The contractual maintenance agreement for these systems will expire at the end of FY 2012. There is a reduction of $20,000 budgeted for consultants. Instead of hiring consultants, experienced staff members will provide training. Also, employees will be encouraged to use online training programs. There is a reduction of $39,369 budgeted for lease/purchase equipment and a reduction of $11,500 budgeted for travel to conferences. These reductions can be made based on prior year spending trends.

Office of Chief Technology Officer - 411

Sherwin Collette, Chief Technology Officer

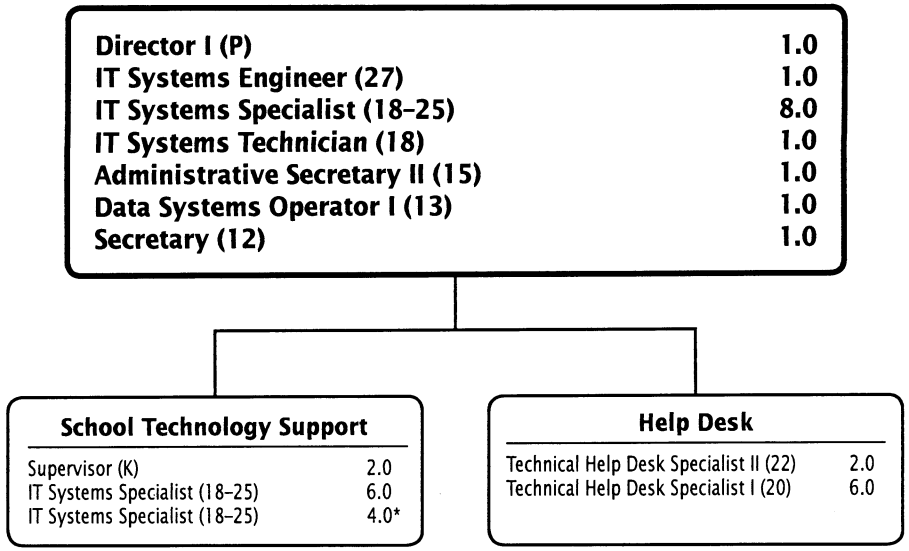
Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	14.000	15.000	15.000	**14.000**	(1.000)
Position Salaries	$1,163,899	$1,303,562	$1,303,562	**$1,334,525**	$30,963
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		68,301	68,301	**68,301**	
Other					
Subtotal Other Salaries	3,572	68,301	68,301	**68,301**	
Total Salaries & Wages	1,167,471	1,371,863	1,371,863	**1,402,826**	30,963
02 Contractual Services					
Consultants					
Other Contractual		1,107,136	1,107,136	**536,862**	(570,274)
Total Contractual Services	1,500,933	1,107,136	1,107,136	**536,862**	(570,274)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		18,600	18,600	**18,600**	
Other Supplies & Materials		14,099	14,099	**1,099**	(13,000)
Total Supplies & Materials	135,746	32,699	32,699	**19,699**	(13,000)
04 Other					
Local/Other Travel		41,076	41,076	**29,576**	(11,500)
Insur & Employee Benefits					
Utilities		3,036,955	3,036,955	**3,036,955**	
Miscellaneous		654,405	654,405	**634,405**	(20,000)
Total Other	3,910,164	3,732,436	3,732,436	**3,700,936**	(31,500)
05 Equipment					
Leased Equipment		67,092	67,092	**27,723**	(39,369)
Other Equipment					
Total Equipment	29,803	67,092	67,092	**27,723**	(39,369)
Grand Total	$6,744,117	$6,311,226	$6,311,226	**$5,688,046**	($623,180)

Office of Chief Technology Officer - 411

Sherwin Collette, Chief Technology Officer

CAT		DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
1		Chief Technology Officer		1.000	1.000	1.000	**1.000**	
11	O	Supervisor			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**	
3	BD	Instructional Specialist		2.000	2.000	2.000	**2.000**	
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	Copy Editor/Admin Sec		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	**1.000**	
1	16	Fiscal Assistant III		1.000	1.000	1.000	**1.000**	
1	12	Secretary		1.000	1.000	1.000		(1.000)
	Total Positions			**14.000**	**15.000**	**15.000**	**14.000**	**(1.000)**

Division of Technology Support



F.T.E. Positions 30.0

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

Division of Technology Support—422/423/424

Charles (Chuck) L. McGee, Director I 240-632-6970

Mission *The mission of the Division of Technology Support (DTS) 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, software installation and upgrades, as well as visitor management and school access control systems. Their work assignment includes all elementary schools, 16 middle schools, and five special schools. This group routinely partners with administrators, teachers, media specialists, and central services staff to prepare for distance learning, online testing, and other 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 supports a wide range of technology infrastructure, hardware, and over 100 school- and office-based and enterprise-wide applications. Help Desk specialists attend ongoing training preparing them to resolve basic network issues, support new application inquiries, and respond to software questions, including 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 as well as to a self-service database, Knowledge Tools. 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 computer software and hardware support in non-school-based offices. The TSS group also works with the school-based technical staff to maintain the closed-circuit security camera systems and access control systems for the Department of School Safety and Security. Support includes integration services, application deployment, network administration, computer image support, and onsite equipment repair and upgrades. They maintain a parts database and inventory for both warranty and non-warranty maintenance of supported equipment. The team sets up and provides technical support for computers and multimedia equipment used for MCPS meetings and activities. Audio Visual (AV) equipment support includes maintaining an equipment pool for all of MCPS, collaborating with school and Media Center staff on establishing AV standards and addressing AV needs, and providing warranty repair of equipment purchased from the AV bid list. TSS staff also collaborates with the Procurement Office and MCPS Television staff in reviewing and making recommendations on all multimedia equipment.

The Customer Relationship Manager (CRM) serves as a subject matter expert, application administrator, and project manager for upgrades to the USD issue tracking systems for the Employee and Retiree Service Center (ERSC), the offices of Shared Accountability, Curriculum and Instructional Programs, and the Chief Technology Officer (OCTO), and the Department of Family and Community Partnerships. The CRM is responsible for extracting data from the USD issue tracking system to design customized reports for schools and central services requests for information. As projects are implemented, the CRM provides daily statistics that reflect the level of success of critical initiatives. 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

The division tracks, manages and resolves requests for support through the USD issue tracking system. In FY 2011, 98,502 requests for services and support were opened in USD by MCPS staff in schools and offices. This represents a decrease of 3,869 requests as compared to 102,371 in FY 2010. This decrease represents increased efficiencies that reduce duplicate requests for the same service.

In FY 2011, of the 98,502 requests logged by the system, the MCPS Help Desk opened 38,474 tickets and closed 23,965 requests at first contact. In addition, they processed another 13,173 tickets that were submitted by other MCPS staff via the Web or e-mail for a total of 51,647 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, usually resolving the customer's problem within the Help Desk without escalation. The Help Desk team continuously works to improve customer service by collaborating with other teams in OCTO 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 2011, STS staff resolved 39,621 reported problems. Results from customer service satisfaction survey indicate that ITSS staff met or exceeded customers' expectations for the services and information provided 90.3 percent of the time. ITSS staffing is a team model with primary and backup assignments based on geography and technology inventory for each school. The team established a "Lifeboat" system to rapidly deploy replacement servers to schools, restoring access to technology and minimizing downtime.

In FY 2011, the TSS team closed 925 emergency requests handling 74 percent within the 12-hour Service Level Agreement (SLA) performance measure. The TSS team also handled 2,994 normal priority calls, meeting the 3-day SLA performance measure 57 percent of the time. The total number of requests of all priorities for this time period was 4,170.

In FY 2011, under the direction of the CRM, the USD issue tracking systems were upgraded for ERSC, the Department of Family and Community Partnerships, the Office of Curriculum and Instructional Programs, and OCTO. Functionality was added to the ERSC system to automate the conversion of e-mail to request tickets. In addition, a USD system was configured for the Office of Curriculum and Instructional Programs, and the Office of Shared Accountability system was expanded to additional groups. The CRM worked with a cross-functional team to adapt an enterprise application to track and manage requests from schools and the Office of School Performance for support related to curriculum, instruction, and assessment. The CRM analyzes data provided by the issue tracking database to provide performance statistics on projects such as the myMCPS web portal; the Online Administrative Student Information System; the electronic grade book used to report and maintain student records; Edline, the parent communication tool; and Measures of Academic Progress—Reading (MAP-R), the measurement accountability reading system.

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 program 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.
- 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.
- Board of Education policy, IGS, Educational Technology, requires that MCPS staff and students be provided with easy, equitable access to technology tools.

Strategies

- Provide technology support for instructional programs and other systemwide 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 program 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, MAP-R, Measures of Academic Progress—Mathematics, the High School Assessment, and the IDEA Proficiency Test.
- 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 onsite and remote technical support.
- Ensure technical readiness in schools and nonschool-based offices.

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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
72%	72%	75%

Explanation: This measure is an indication of the timeliness of problem resolution by Help Desk staff within the SLA. 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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
100%	100%	100%

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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
96.2%	97%	98%

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

Performance Measure: Percentage of emergency tickets closed within the parameters of the SLA for non-school-based offices.

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
74%	74%	75%

Explanation: This measure reflects the number of tickets closed within the same day as they were opened.

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

The FY 2013 request for this division is $2,555,693, an increase of $229,457 over the current FY 2012 budget of $2,326,236. An explanation of this change follows.

Continuing Salary Costs—$161,451
There is an increase of $161,451 for continuing salary costs to reflect step or longevity increases for current employees.

Realignment—$73,006
There is a total of $73,006 realigned into this division from the Department of Information and Application Services. This consists of $71,173 for contractual maintenance to purchase 15 software licenses for systemwide technology analysts, $763 for lease/purchase equipment, $370 for local travel mileage reimbursement, and $700 for dues, registration and fees.

Efficiencies and Reductions—($5,000)
There is a reduction of $5,000 budgeted for audio/visual equipment that is loaned to schools. This reduction can be made based on prior year spending trends.

Division of Technology Support - 422/423/424

Charles McGee, Director I

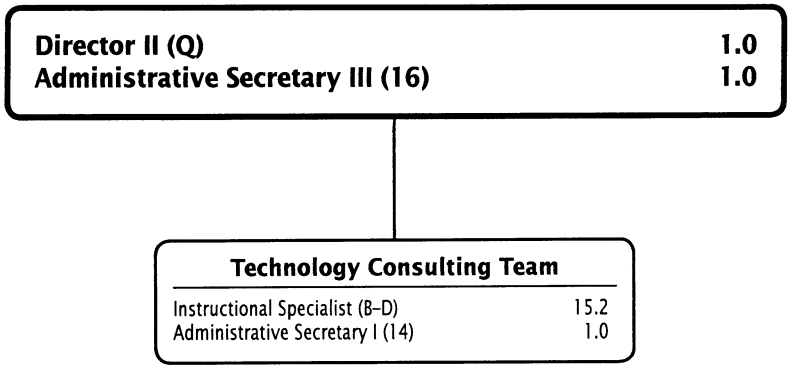
Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	30.000	30.000	30.000	**30.000**	
Position Salaries	$2,369,302	$2,261,176	$2,261,176	**$2,422,627**	$161,451
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries					
Total Salaries & Wages	2,369,302	2,261,176	2,261,176	**2,422,627**	161,451
02 Contractual Services					
Consultants					
Other Contractual		29,850	29,850	**101,023**	71,173
Total Contractual Services	14,938	29,850	29,850	**101,023**	71,173
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		10,152	10,152	**10,152**	
Other Supplies & Materials		14,662	14,662	**9,662**	(5,000)
Total Supplies & Materials	14,633	24,814	24,814	**19,814**	(5,000)
04 Other					
Local/Other Travel		5,383	5,383	**6,453**	1,070
Insur & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	26,639	5,383	5,383	**6,453**	1,070
05 Equipment					
Leased Equipment		5,013	5,013	**5,776**	763
Other Equipment					
Total Equipment	10,106	5,013	5,013	**5,776**	763
Grand Total	$2,435,618	$2,326,236	$2,326,236	**$2,555,693**	$229,457

Division of Technology Support - 422/423/424

Charles McGee, Director I

CAT	DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 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	**1.000**	
11	13 Data Systems Operator		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**	
	Subtotal		**8.000**	**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		6.000	6.000	6.000	**6.000**	
	Subtotal		**8.000**	**8.000**	**8.000**	**8.000**	
	Total Positions		**30.000**	**30.000**	**30.000**	**30.000**	

Department of Instructional Technology



F.T.E. Positions 18.2

Mission *The mission of the Department of Instructional Technology is to support excellence in teaching and learning, facilitate collaborative learning communities, and support operational excellence that enhances the management of the business of education. This is accomplished by building the capacity of administrative, instructional, and support services staff through high-quality, differentiated, and job-embedded professional development to support the implementation of new and existing technologies in schools and offices.*

Major Functions

The department accomplishes its mission by working closely with school leadership to support school improvement plans with technology strategies; designing, developing and delivering high-quality technology professional development on systemwide applications to support teaching and learning; using technology to facilitate and enhance professional learning communities, collaborating with Montgomery County Public Schools (MCPS) offices and schools to identify needs for which technology solutions can be applied; and developing, distributing, and supporting interactive distance learning. The department provides leadership and program management for the implementation of new technologies in schools to increase teacher capacity by saving valuable time. The department manages the Center for Technology Innovation, which is the school system's primary technology training facility for all staff. The department supports the instructional implementation of the Educational Technology Policy in all schools and the Technology Modernization Program.

The department provides onsite, centralized, and web-based professional development using the Analysis, Design, Development, Implementation, and Evaluation instructional system design model, for school and office staff on skills and strategies needed for data-driven decisionmaking, and integrating technology into instructional and management practices. Professional development including myMCPS, assessment technologies, communications applications, curriculum and course management platforms, instructional applications, and electronic resources will enhance both instructional and managerial practices. Whenever feasible, the department employs a job-embedded approach to professional development when working with school staff to increase technological pedagogical content knowledge as it relates to individual teacher's implementation of the curriculum. The use of webinar and collaboration site technologies facilitates professional learning communities that bring together job-alike professionals from across the county. The department develops online training opportunities using best-practice technology solutions and methodologies, translates application functions into MCPS business practices, and researches and develops the latest instructional resources and software. The department collaborates with school leadership and identifies targeted, exemplary technology integration practices. Staff also helps identify hardware, software, and electronic resources to support school improvement objectives, and provides support and training to administrators and instructional and support staff. The department also supports the use of 21st century interactive classroom technologies to create and strengthen inclusive, diverse community-centered classrooms that foster a culture of inquiry, respect, and risk taking so that all students are empowered to participate as full citizens in meaningful learning communities.

Trends and Accomplishments

Educational technology has evolved from being viewed solely as a tool to support direct instruction and provide valuable resources to students, to providing a highly interactive, responsive, and dynamic platform for professional development including solutions to effectively provide meaningful information about student performance that guides instructional and school improvement decisions. With new technologies, such as myMCPS, it possible to do the following:

- Assess student progress on a regular basis
- Efficiently score and report results in a timely manner to help teachers and administrators make real-time decisions
- Support efficient planning and provide a tailored instructional program to students
- Allocate human and capital resources quickly to achieve desired results

While there is a wide variety of technology solutions for many of the work-related tasks and functions required in a school system, it is imperative to continually receive feedback regarding the time-saving value and effectiveness of these solutions. The mission of the department has been crafted to meet the challenges of the dynamic nature of technology and the unique needs of MCPS.

Each school receives direct support from a team of instructional technology specialists to provide technology-based strategies and professional development on those technologies to support school improvement plan goals. The department provides project management on three assessment technologies: the MCPS Assessment Program—Primary Reading 3D; Measure of Academic Progress—Reading/Primary; and Achievement Series. Project management also is provided for Discovery Education Streaming which provides schools with access to a vast on-demand video library to support instruction.

Major Mandates

- The National Educational Technology Plan 2010 recommends the following actions:
- Provide pre-service and in-service educators with preparation and professional learning experiences powered by technology that closes the gap between students' and educators' fluencies with technology and promote and enable technology use in ways that improve learning, assessment, and instructional practices
- Transform the preparation and professional learning of educators and education leaders by leveraging technology to create career-long personal learning networks within and across schools, pre-service preparation and in-service educational institutions, and professional organizations
- Use technology to provide access to the most effective teaching and learning resources, especially where they are not otherwise available and to provide more options for all learners at all levels
- Title II Part D of the *No Child Left Behind Act of 2001* has as its primary goal to "improve student academic achievement through the use of technology in elementary schools and secondary schools" which includes:
- All students being technologically literate by the time they finish the 8th grade
- The effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods
- The Maryland Instructional Leadership Framework developed by the Maryland State Department of Education (MSDE) and adopted by the MSDE states in outcome 6 that school leadership will "use technology and multiple sources of data to improve classroom instruction."
- The MCPS strategic technology plan, Educational Technology for 21st Century Learning, includes the following: Goal 1: Students will use technology to become actively engaged in learning; Goal 2: School staff will address the digital divide through equitable access to technology; Goal 3: Staff will improve technology skills through professional development; and Goal 4: Staff will use technology to improve productivity and results.

Strategies

- Ensure the successful integration of technologies that support teaching, learning, and workforce excellence by embedding instructional and achievement technologies within school improvement plan strategies and activities; provide instructional leaders with look-fors and monitoring tools; and develop anywhere/anytime professional development materials
- Develop relationships with school-based and central services staff to facilitate the identification of needs that can be addressed through technology and formalize user feedback channels to application development/deployment teams

Performance Measurements

Performance Measure: Mastery of Training Outcomes

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
TBD	90%	93%

Explanation: Percentage of attendees reporting mastery of all stated training session outcomes as indicated on post-training survey.

Performance Measure: Center of Technology Innovation Satisfaction

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
85%	87%	90%

Explanation: Percentage of guest instructors that rate their experience as excellent or very good as reported via online survey.

Budget Explanation Department of Instructional Technology—435

The FY 2013 request for this department is $1,876,916, an increase of $10,010 from the current FY 2012 budget of $1,866,906. An explanation of this change follows.

Continuing Salary Costs—$64,926
There is an increase of $64,926 for continuing salary costs to reflect step or longevity increases for current employees.

Efficiencies and Reductions—($54,916)
There is a reduction of $31,016 budgeted for training stipends. Teachers will be encouraged to attend voluntary training sessions and use school-based resources such as Grade Book Advisors for new technologies. In addition, there is a reduction of $20,000 budgeted for office supplies, a reduction of $2,000 for contractual maintenance, and a reduction of $1,900 for local travel mileage reimbursement. These reductions can be made based on prior year spending trends.

Dept. of Instructional Technology - 435

John L. Burke, Director II

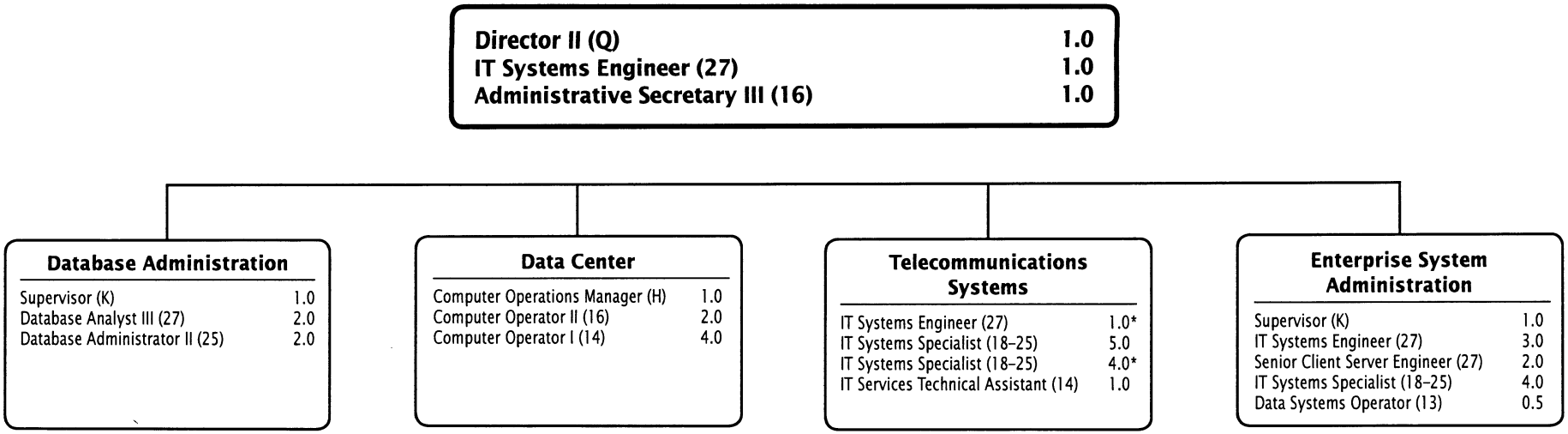
Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	21.200	18.200	18.200	**18.200**	
Position Salaries	$2,070,444	$1,781,307	$1,781,307	**$1,846,233**	$64,926
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends		31,016	31,016		(31,016)
Professional Part Time					
Supporting Services Part Time		8,100	8,100	**6,693**	(1,407)
Other					
Subtotal Other Salaries		39,116	39,116	**6,693**	(32,423)
Total Salaries & Wages	2,151,994	1,820,423	1,820,423	**1,852,926**	32,503
02 Contractual Services					
Consultants					
Other Contractual		4,000	4,000	**3,407**	(593)
Total Contractual Services	868	4,000	4,000	**3,407**	(593)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		32,000	32,000	**12,000**	(20,000)
Other Supplies & Materials					
Total Supplies & Materials		32,000	32,000	**12,000**	(20,000)
04 Other					
Local/Other Travel		10,483	10,483	**8,583**	(1,900)
Insur & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	8,063	10,483	10,483	**8,583**	(1,900)
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	$2,160,925	$1,866,906	$1,866,906	**$1,876,916**	$10,010

Dept. of Instructional Technology - 435

John L. Burke, Director II

CAT	DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
1	Q Director II		1.000	1.000	1.000	**1.000**	
3	BD Instructional Specialist		18.200	15.200	15.200	**15.200**	
1	16 Administrative Secretary III		1.000	1.000	1.000	**1.000**	
1	14 Administrative Secretary I		1.000	1.000	1.000	**1.000**	
	Total Positions		**21.200**	**18.200**	**18.200**	**18.200**	

Department of Infrastructure and Operations



F.T.E. Positions 31.5

(*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 enterprise-wide 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 four units—Database Administration, Data Center, Telecommunication Services, and Enterprise Systems Administration. All four units work collaboratively to ensure that Montgomery County Public Schools (MCPS) technology systems are designed and operated in the most efficient manner possible. The director's office 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 director's office 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 director's office ensures that project documentation is kept in an accessible place and that quality assurance processes are created, documented, and communicated for maximum efficiency.

The Database Administration Unit is responsible for creating, maintaining, backing up and recovering, and monitoring enterprise databases (Online Administrative Student Information System, 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 unit is responsible for maintaining the data center facility with round-the-clock sensors for power, temperature, humidity, fire, and other mechanical functions.

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—wired, wireless, 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, and the intrusion detection/prevention equipment—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 Enterprise Systems 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, as well as parents. The unit is responsible for the efficient operation of the systems as well as preventive security measures. The Enterprise Systems Administration Unit also is responsible for systemwide user account management for the network and all application systems, such as the student data system, financial management, human resources systems, and the *myMCPS* portal, to enable appropriate access for MCPS users. In addition, the unit manages the operation of the MCPS e-mail system and is responsible for all e-mail system upgrades and implementations. 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.

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 142,000 report cards per reporting period and 1,500 employee paychecks and 22,000 timesheets per pay period (employee pay stubs are available electronically via ePaystub, 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 Enterprise Systems Administration Unit continued with implementation of the server consolidation program through FY 2012, including the expansion of a virtual server environment to include more 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 2010 to take advantage of increased protection of data for security and to optimize our investment for future growth. This upgrade also provides better integration with the MCPS portal, *myMCPS*. The department also continued to modify the structure of the MCPS network (Active Directory) to accommodate newly modernized schools and support our strategy of moving to a more efficient network design with a single domain.

In FY 2012, databases for the Financial Management System, 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.

For the elementary schools that are not yet connected to Montgomery County Fibernet, the Telecommunications team provided improved WAN connections using virtual private network technology. All elementary schools were added to the MCPS network using this technology which provides increased bandwidth speeds. Internet availability continued to be over 99 percent overall.

New telephone systems were installed in 12 elementary schools and administrative offices using Voice-over-IP (VoIP) capable phone systems. These VoIP systems provide additional services to the users, such as caller ID and call forwarding, and significantly reduce the expenses of inside wiring by using either existing data lines or running one data line throughout a school as opposed to a large number of voice lines per handset. Over 4,800 work requests for moves, additions, and changes for schools and administrative offices were completed in FY 2012. The Telecommunications team continued its management of the cell phone and data device programs, refreshing phone equipment for emergency phones in portable classrooms and school emergency kits.

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 information technology 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.
- 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/deprovisioning 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
- Migrate more physical servers to the virtual server production environment 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

- •Expand/manage a more robust disaster recovery site with MCPS network-connected database servers and back-up systems to provide efficient and faster recovery of data in case of emergency and/or disaster
- Work with MCPS staff and consultants to identify, develop, and implement industry-accepted network management procedures, best practices, and technical solutions
- Design and relocate to an updated data center that meets industry standards for adequate electric and cooling capacity
- 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
- 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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
99.87%	99.90%	99.95%

Explanation: This is 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 2011 Actual	FY 2012 Estimate	FY 2013 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 2013 request for this department is $5,508,921, a decrease of $100,706 from the current FY 2012 current budget of $5,609,627. An explanation of this change follows.

Continuing Salary Costs—$39,351
There is an increase of $39,351 for continuing salary costs to reflect step or longevity increases for current employees.

Realignment—$153,831
There is a realignment of $153,831 from the Department of Information and Application Services into this department for contractual maintenance.

Efficiencies and Reductions—($293,888)
There is a reduction of $106,144 budgeted for contractual maintenance and a reduction of $187,744 budgeted for lease/purchase equipment. These reductions are due to renegotiated contract agreements for Oracle identity manager software and increased capability of the newer technology for student database application servers.

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

Cary Kuhar, Director II

Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	33.500	31.500	31.500	**31.500**	
Position Salaries	$2,946,400	$2,692,503	$2,692,503	**$2,731,854**	$39,351
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		29,729	29,729	**29,729**	
Other		14,899	14,899	**11,831**	(3,068)
Subtotal Other Salaries	38,714	44,628	44,628	**41,560**	(3,068)
Total Salaries & Wages	2,985,114	2,737,131	2,737,131	**2,773,414**	36,283
02 Contractual Services					
Consultants		61,500	61,500	**76,500**	15,000
Other Contractual		1,597,903	1,597,903	**1,686,913**	89,010
Total Contractual Services	1,829,795	1,659,403	1,659,403	**1,763,413**	104,010
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		3,400	3,400	**3,400**	
Other Supplies & Materials		271,612	271,612	**250,829**	(20,783)
Total Supplies & Materials	299,641	275,012	275,012	**254,229**	(20,783)
04 Other					
Local/Other Travel		5,956	5,956	**10,196**	4,240
Insur & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	2,347	5,956	5,956	**10,196**	4,240
05 Equipment					
Leased Equipment		932,125	932,125	**707,669**	(224,456)
Other Equipment					
Total Equipment	1,008,944	932,125	932,125	**707,669**	(224,456)
Grand Total	$6,125,841	$5,609,627	$5,609,627	**$5,508,921**	($100,706)

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

Cary Kuhar, Director II

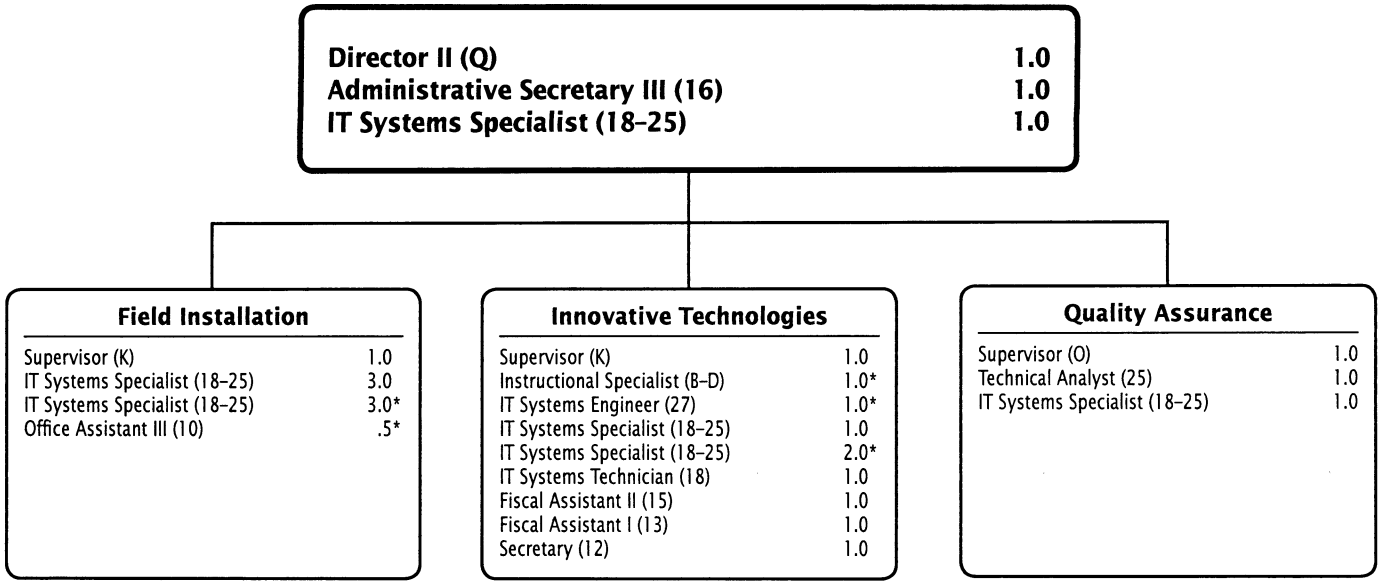
CAT	DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
	446 Department of Infrastructure & Ops						
1	Q Director II		1.000	1.000	1.000	**1.000**	
1	27 IT Systems Engineer			1.000	1.000	**1.000**	
1	16 Administrative Secretary III		1.000	1.000	1.000	**1.000**	
	Subtotal		**2.000**	**3.000**	**3.000**	**3.000**	
	433 Telecommunications Systems						
11	K Supervisor		1.000				
1	25 IT Systems Specialist		2.000	1.000	1.000	**1.000**	
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**	**6.000**	**6.000**	**6.000**	
	447 Database Administration						
1	K Supervisor		1.000	1.000	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	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		**7.000**	**7.000**	**7.000**	**7.000**	
	451 Enterprise System Administration						
1	K Supervisor			1.000	1.000	**1.000**	
1	27 Sr Client Server Engineer			2.000	2.000	**2.000**	
1	27 IT Systems Engineer		1.000	3.000	3.000	**3.000**	
1	25 IT Systems Specialist		2.000	2.000	2.000	**2.000**	
11	25 IT Systems Specialist			2.000	2.000	**2.000**	
1	13 Data Systems Operator		.500	.500	.500	**.500**	
	Subtotal		**3.500**	**10.500**	**10.500**	**10.500**	
	452 Systems Administration						
1	27 Sr Client Server Engineer		2.000				
1	27 IT Systems Engineer		2.000				
11	25 IT Systems Specialist		2.000				
	Subtotal		**6.000**				
	453 Infrastructure Project Management						
1	K Supervisor		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 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
	453 Infrastructure Project Management						
1	27 IT Systems Engineer		1.000				
	Subtotal		**2.000**				
	Total Positions		**33.500**	**31.500**	**31.500**	**31.500**	

Department of Strategic Project Management and Planning



F.T.E. Positions 16.0

(*In addition, ther are 7.5 Capital Budget positions shown on this chart)

Mission *The mission of the Department of Strategic Project Management and Planning (DSPMP) is to implement innovative 21st century technologies that excite our customers and stakeholders, giving them a way to energize teaching and engage students in their learning; integrate rigorous project management and quality assurance disciplines to deliver desired results in new areas of effort; promote dependable, repeatable, and reliable operational work processes that are responsive to customer needs; and create a strategic plan for the use of technology in teaching and learning.*

Major Functions

DSPMP oversees the use of effective project and process management tools that lead to successful results. 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 to deliver the right solutions at the right time. Operational process improvement 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. The Office of the Chief Technology Officer (OCTO) is committed to delivering high-quality solutions that meet or exceed customer expectations.

Staff in the department collaborates with the schools and other Montgomery County Public Schools (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 2012. This 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 MCPS strategic technology plan is being revised based on the release of the new *Maryland Educational Technology Plan in 2012.*

In addition, the department coordinates the functions and operations of four units—Quality Assurance (QA), Field Installation, Educational Technology Support, and Innovative Technologies. Department staff provides the knowledge, processes, and resources needed to consistently meet customer expectations for high-quality, reliable technology solutions through programs such as Technology Modernization (Tech Mod), interactive classroom technologies (Promethean), E-Rate, and test-driven technology development.

Among the practices that lead to successfully accomplishing this commitment are quality assurance and testing. The QA unit provides leadership in the use of quality assurance best practices focused on meeting commitments for quality products and services that satisfy customer needs and perform reliably when delivered. QA practices encompass the entire software development process including requirements, change management, configuration management, testing, and release. QA tools and techniques provides for tracking the effective use of development processes with measurement and verification throughout the development life-cycle to final readiness review. 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. Additionally, staff creates user materials including quick reference cards, frequently asked questions, and user guides to provide staff with guidance that supports a successful experience with the use of technology products and services.

The Field Installation unit implements 21st century technologies in MCPS classrooms. To update technologies in schools, through the Tech Mod Program, staff in this unit works with school staff to plan the integration of hardware and software in schools, install the technology, and ensure readiness at the opening of the school year. Staff maximizes the technology investment by reassigning older technologies and equipment to single purpose, less demanding yet important functions in the schools. Examples of reassignments include door card readers, achievement series scan stations, visitor management systems, Fluency and Automaticity through Systematic Teaching with Technology (FASTT) Math, and Read 180. Additionally, the unit collects online data for updating and maintaining the asset management system and software license compliance. This unit supports centralized distribution of software updates, service packs, license keys, and enterprise systems management.

The Educational Technology Support unit 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. Staff carefully reviews telecommunication invoices, including wireless and data connection lines, to ensure accuracy of payment. 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.

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 gathering requirements from stakeholders. 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. 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. Professional staff in this unit assists in defining the professional development needed to integrate interactive classroom technologies into teaching and learning. Additionally, support was provided for teachers at elementary, middle, and high school levels in their implementation of Multimedia Universal Design for Learning objectives and new technologies.

The planning and implementation of interactive white board technology is led by department staff who meets with principals and teachers to redesign classrooms for 21st century instructional practices. School resources, the parent community, and school construction programs have enabled these technologies to support teaching and learning in 69 percent of secondary and 37 percent of elementary core learning facilities.

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 typically is 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 November 2010, department staff celebrated with the entire MCPS community on the district receiving the Malcolm Baldrige Quality Award. Department staff was actively involved in writing the application for the award, particularly Category 4.0, Measurement, Analysis, and Knowledge Management.

DSPMP 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 systemwide initiatives.

The Tech Mod 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 Fiscal Year (FY) 2014. Tech Mod replaced 10,022 computers, 192 file servers, and 1,500 printers in 62 schools, three alternative sites, and one special education school. The 192 file servers use 34 percent less energy than those being replaced. Staff continued to refurbish and repair 9,039 computers in the 43 schools that had been anticipating the replacement of their four-year-old computers in FY 2012. These schools included nine high schools, 11 middle schools, 22 elementary schools, and the Regional Institute for Children and Adolescents. The program supported the installation of technology in five modernized schools (one middle school and four elementary schools).

Process improvements include deploying printers set to duplex (print on both sides), resulting in savings of over $210,000 per year and using remanufactured ink cartridges from quality approved vendors, providing an estimated $637,000 savings in FY 2011. The self-warranty program for repair of computers out-of-warranty, due to the one-year delay in technology modernization, delivered 86 percent of the repairs within eight hours.

Staff supported the federal application processes for E-Rate telecommunication rebates totaling approximately $2.1 million for FY 2011. In the fall of 2010 the department received funding for MCPS to continue its role of co-leading with Washington County Public Schools a competitive grant under Title II-D—Enhancing Education through Technology under the *No Child Left Behind Act of 2001*. This grant funds a statewide consortium developing online professional development

modules based on the Maryland Teacher Technology Standards.

Project management leadership for the enhanced Instruction Center within myMCPS was provided by DSPMP staff. 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 and resulted in the deployment of the myMCPS Instruction Center, enhancing the current myMCPS by creating an environment with curriculum related collaboration and communication, user-friendly features, job embedded training, and integrated curriculum and professional development resources. Staff developed and submitted a patent application to the United States Patent Office for MCPS' Elementary Integrated Curriculum as presented though the myMCPS Instruction Center.

Staff participated in the Pearson/MCPS project funded through an appropriation from the United States Department of Education for the three-year Investment in Innovation grant Project North Star, now called Pearson Forward. The grant helped support the development of the MCPS integrated elementary school curriculum, as presented through the myMCPS Instruction Center, and continued development is providing for more robust assessments and teacher professional development than could not be created without the partnership. Design features include an online learning community for teachers for real-time professional development in a collaborative Web 2.0 environment. Staff provided project management expertise for the development of key project components including the work break down structure, program schedule, requirements gathering, design reviews, usability testing, and tiger team participation for key milestones.

The integration of project management and quality assurance best practices facilitates improved performance and results in the delivery of technology solutions and services. Introduction of the Agile/Scrum methodology for software development and standardization on the use of Microsoft's Team Foundation Services suite of software development tools were key focuses for project managers, development team members, and product owners. 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. Project management courses and a course on Agile/Scrum methods are available for use with project teams.

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.
- Board of Education Policy IGS, Educational Technology, requires that staff and students be provided with easy, equitable access to technology tools.
- The federal Investment in Innovation (i3) grant from the United States Department of Education helps support the development of the MCPS integrated elementary school curriculum. The i3 grant and partnership with Pearson, LLC provide an opportunity to develop more robust student assessments and teacher professional development that could not be created without the partnership. Key design features include an online learning community providing for real-time professional development in a collaborative Web 2.0 environment.
- 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 Predators 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 and process 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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
93%	95%	100%

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 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
100%	100%	100%

Explanation: This is 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.*

Budget Explanation Department of Strategic Project Management and Planning—421/427/428/434

The FY 2013 request for this department is $1,416,164, an increase of $74,344 over the current FY 2012 budget of $1,341,820. An explanation of this change follows.

Continuing Salary Costs—$33,969
There is an increase of $33,969 for continuing salary costs to reflect step or longevity increases for current employees.

Realignment—$86,497
There are realignments of a 1.0 secretary position and $64,581, and $13,000 for supplies from the Office of the Chief Technology Officer to this department. Also, there is a realignment of $8,916 from the Department of Information and Application Services to this department to increase local travel mileage reimbursement by $2,700, office supplies by $3,080, dues, registration and fees by $2,135, and program supplies by $1,001.

Efficiencies and Reductions—($46,122)
There is a reduction of $26,122 budgeted for contractual services and a reduction of $20,000 budgeted for program supplies. These reductions can be made based on prior year spending trends.

Dept. of Strategic Proj Management & Planning - 421/425/427/428/434/918

Doreen M. Heath, Director II

Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	17.800	15.000	15.000	**16.000**	1.000
Position Salaries	$1,357,038	$1,252,531	$1,252,531	**$1,351,081**	$98,550
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time					
Other					
Subtotal Other Salaries	1,868				
Total Salaries & Wages	1,358,906	1,252,531	1,252,531	**1,351,081**	98,550
02 Contractual Services					
Consultants					
Other Contractual		36,542	36,542	**10,420**	(26,122)
Total Contractual Services	55,303	36,542	36,542	**10,420**	(26,122)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		3,374	3,374	**6,454**	3,080
Other Supplies & Materials		27,344	27,344	**20,827**	(6,517)
Total Supplies & Materials	29,985	30,718	30,718	**27,281**	(3,437)
04 Other					
Local/Other Travel		22,029	22,029	**27,382**	5,353
Insur & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	21,265	22,029	22,029	**27,382**	5,353
05 Equipment					
Leased Equipment					
Other Equipment					
Total Equipment					
Grand Total	$1,465,459	$1,341,820	$1,341,820	**$1,416,164**	$74,344

Dept. of Strategic Project Management and Planning - 421/427/428/434/425

Doreen M. Heath, Director II

CAT	DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
	421 Dept. of Strategic Project Manageme						
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	**1.000**	
1	25 Technical Analyst		1.000	1.000	1.000	**1.000**	
1	16 Administrative Secretary III		1.000	1.000	1.000	**1.000**	
	Subtotal		**5.000**	**5.000**	**5.000**	**5.000**	
	427 Educational Technology Support						
1	25 IT Systems Specialist		1.000	1.000	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		**4.000**	**4.000**	**4.000**	**1.000**	**(3.000)**
	428 Innovative Technologies						
1	K Supervisor		1.000	1.000	1.000	**1.000**	
1	25 IT Systems Specialist		1.000	1.000	1.000	**1.000**	
11	18 IT Systems Technician					**1.000**	1.000
1	15 Fiscal Assistant II					**1.000**	1.000
11	13 Fiscal Assistant I					**1.000**	1.000
1	12 Secretary					**1.000**	1.000
	Subtotal		**2.000**	**2.000**	**2.000**	**6.000**	**4.000**
	434 Field Installation						
3	K Supervisor		1.000	1.000	1.000	**1.000**	
1	25 IT Systems Specialist		3.000	3.000	3.000	**3.000**	
	Subtotal		**4.000**	**4.000**	**4.000**	**4.000**	
	425 Division of Technology Innovation						
1	P Director I		1.000				
1	15 Administrative Secretary II		1.000				
	Subtotal		**2.000**				
	Total Positions		**17.000**	**15.000**	**15.000**	**16.000**	**1.000**

Department of Information and Application Services

Director II (Q)	**1.0**
Supervisor (O)	**1.0**
Supervisor (K)	**1.0**
Database Administrator III (27)	**1.0**
Development Project Manager (27)	**1.0**
Applications Developer III (27)	**1.0**
Applications Developer II (25)	**3.0**
Technical Analyst (25)	**1.0**
Applications Developer I (23)	**1.0**
Administrative Secretary III (16)	**1.0**
Fiscal Assistant I (13)	**.8**

Business Information Services

Supervisor (O)	2.0
Supervisor (K)	3.0
Operations Development Manager (J)	1.0
Application Developer III (27)	2.0
Development Project Manager (27)	3.0*
Applications Developer II (25)	6.0
Technical Analyst (25)	1.0
Fiscal Assistant II (15)	1.0
Data Control Technician II (15)	1.0

Student Application Services

Instructional Technology Application Services

Supervisor (O)	2.0
Instructional Specialist (B-D)	2.0
Database Administrator III (27)	1.0
IT Systems Engineer (27)	1.0*
Application Developer II (25)	1.0
ETL Analyst/Programmer (25)	1.0
IT Systems Specialist (18-25)	1.0*

Administrative Student Systems and Operations

Supervisor (K)	1.0
Instructional Specialist (B-D)	1.0
Database Administrator III (27)	1.0
Application Developer II (25)	2.0
ETL Analyst/Programmer (25)	1.0
Student Systems Specialist (24)	1.0
Applications Specialist I (23)	1.0
Data Control Technician II (15)	1.0
Data Control Technician I (13)	1.0

F.T.E. Positions 49.3

(*In addition, there are 2.0 Capital Budget positions shown on this chart and a 0.5 position charged to the Trust Fund.)

Department of Information and Application Services—445/426/442/443/444

Elton Stokes, Director II 240-453-2421

Mission *The mission of the Department of Information and Application Services (DIAS) is to plan, implement, and support quality technology solutions to execute the district's priorities in support of Our Call to Action: Pursuit of Excellence.*

Major Functions

DIAS collaborates with offices, schools, and local government agencies to promote and support Montgomery County Public Schools (MCPS) and the initiatives of the Office of the Chief Technology Officer, by developing, implementing, and continuously improving MCPS knowledge management solutions. Based on goals and priorities, the department develops, purchases, implements, and supports complex solutions for students, parents, schools, and offices. These solutions enable: the collection and analysis of essential data; decision-making and planning; dissemination of accurate and timely information; and operational effectiveness that streamlines and enhances the management of teaching and learning, as well as MCPS compliance to state and federal regulations.

DIAS empowers offices and schools by provisioning the management and administration of student systems. The Online Administrative Student Information Systems (OASIS) is the source system for managing all student administrative information including enrollment, attendance, report cards and transcripts, scheduling, course management, and assessment information. OASIS consists of user-friendly applications that provide an easy and accurate method to collect student administrative data. The OASIS Special Services (OSS) module is a component of OASIS that greatly increases the efficiency of managing the special education process for families, schools, and central services administrators and enables creation of the electronic Individualized Education Program (IEP). DIAS staff also manages the Online Achievement and Reporting System comprising an electronic grade book and 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. The enterprise electronic grade book facilitates 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 reporting solutions provide a breadth of current and historical reports to support both detail and summary-level analysis for strategic data-driven decision making.

DIAS also supports many solutions used to manage operational functions throughout the district. The Human Resource Information System (HRIS) integrates personnel, time and attendance, leave management, payroll, and employee benefit functions that allow for effective management of information and resources. The Professional Development Online system is used for managing and monitoring MCPS employee training. The Benefits Workstation is used to administer and manage employee pension benefits. MCPS Careers is a Web-based solution that automates the hiring process for MCPS-based position vacancies. The Financial Management System integrates supply chain, finance, and budgeting functions. Connect-ED is used by schools and central services to effectively and efficiently communicate important information to students, staff, parents, and the community, such as student absences and school activities. The Transportation Information Management System supports the management of human and automotive resources utilized by MCPS. Fortis provides MCPS an electronic document management tool that dramatically increases access to information previously only available on paper, such as personal and student records.

Information from the student and business systems and other information services are published in the myMCPS portal which provides end users the information they need in a single place. The myMCPS portal is designed to deliver a personalized user experience based on a user's roles and responsibilities in the school system. The portal facilitates team and peer group communication and collaboration; provides access to role-specific applications, data warehouse dashboards and reports; and offers information services, including the elementary integrated curriculum, teacher and student attendance data, and social networking features, such as wikis, discussion boards, and blogs. 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.

These student and business solutions add value to overall district operations by providing accurate, timely, comprehensive, and accessible information. They 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 solutions. This includes 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 enterprise portal, myMCPS, received a major upgrade providing users a dynamic, interactive, and customizable environment enabling school and office staff the ability to contribute to and participate in social networking and professional development. The enhanced features empower staff to create and share instructional content with the MCPS 21st century professional learning community. Rich feature sets include video libraries, content personalization, and discussion boards to accelerate the communication of ideas across groups. The Online Achievement and Reporting System (OARS) has been integrated into myMCPS, further streamlining access to instructional resources and creating a unified learning community for staff, students, and parents. The myMCPS community is able, for the first time, to collaborate seamlessly in the process of student articulation. Student achievement data is combined with parent and student requests as well as teacher recommendations to ensure students can receive the instructional services and classes best suited to their needs for the upcoming school year.

OASIS has received continuous upgrades to fulfill Board of Education (BOE) policy, regulation, and procedural changes, as well as Maryland state and federal government mandated changes. These upgrades included modifications to the Special Services module to comply with Maryland State Department of Education (MSDE) mandated changes to the IEP. New student data re-ports were created in support of new state and federal compliance requirements which are tied to MCPS funding levels and MSDE compliance regulations.

The initial phase of the student course scheduling system upgrade began at selected secondary schools. This upgrade enables those schools to plan and complete their master schedule using a Web-based interface that provided improved accessibility and transparency for all users. During subsequent phases, students will have the ability to enter their course requests, improving the accuracy and efficiency for master schedulers during articulation and master schedule development. Additionally, the up-grade enabled better management and definition of courses and control of their availability.

The electronic grade book component of the Online Achievement and Reporting System received an upgrade which enables student attendance to be entered and reported in a more accurate and timely manner than the previous legacy system, directly from the grade book. Improved attendance monitoring enabled high school administrators, teachers, and parents to better advocate for students and provide more timely and appropriate interventions for student truancy and absenteeism.

The Applicant Tracking System, MCPS Careers, has been updated to take advantage of enhanced communication features and integrations with social networking and mobile computing. The system also has been configured for more efficient processing of applicants and candidates to be hired, saving time and increasing operational effectiveness.

New employee self-service functionality has been added to myMCPS enabling MCPS staff to modify direct deposit elections, change/update personal information, and verify/modify beneficiaries. The new features will reduce the reliance on paper forms and phone interactions and provide employees with anytime access to information. Additionally, an online suggestion box was developed for capturing innovative solutions from employees which will improve business operations, processes, and practices throughout the organization.

The Fortis document management system has been updated to reduce reliance on an installed client and provide secure access via the Internet. Increased integration with other systems has decreased the amount of manual scanning by electronically archiving information.

The Substitute Employee Management System was upgrade to enable staff that supports multiple schools to arrange substitute coverage with a single account. Data from the system integrates with the Time and Attendance system streamlining leave re-porting.

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.
- Board of Education Policy IGS, *Educational Technology*, requires that all staff have easy, equitable access to appropriate in-formation 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 website 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 the Department of Instructional Tech-nology 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 myMCPS capabilities to provide more information and collaboration services to staff, students, and parents
- 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*
- Support 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 in meeting identified needs of the organization
- Increase the availability of relevant information to users by implementing enhanced reporting tools

Performance Measures

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

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
90%	95%	97%

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

Performance Measure: The percentage of software implemented without major defects.

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
NA	90%	92%

Explanation: This measure indicates the percentage of software implemented that performs without error based upon design specifications.

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

FY 2011 Actual	FY 2012 Estimate	FY 2013 Recommended
90%	92%	94%

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—445/426/442/443/444

The FY 2013 request for this department is $9,254,119, a decrease of $603,552 from the current FY 2012 budget of $9,857,671. An explanation of this change follows.

Continuing Salary Costs—$1,093
There is an increase of $1,093 for continuing salary costs to reflect step or longevity increases for current employees.

Realignment—($213,468)
There are several realignments from this department to other departments within the Office of Chief Technology Officer. There is a technical realignment of $153,831 to the Department of Infrastructure and Operations, a realignment of $73,006 to the Division of Technology Support to purchase additional software licenses, and a realignment of $8,916 to the Department of Strategic Project Management and Planning for local travel mileage reimbursement and supplies. In addition, there is a realignment of $22,285 from the Office of Human Resources and Development into this department to support the E-school solution project.

Efficiencies and Reductions—($391,177)
There is a reduction of $192,228 budgeted for contractual equipment maintenance and a reduction of $114,284 budgeted for contractual services as a result of replacing current software with more effective and cost efficient software. Also, there is a reduction of $76,400 budgeted for consultant fees due to renegotiation of the contract for the Human Resources Information System upgrade. In addition, there is a reduction of $8,265 budgeted for lease/purchase equipment.

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

Elton Stokes, Director II

Description	FY 2011 Actual	FY 2012 Budget	FY 2012 Current	**FY 2013 Request**	FY 2013 Change
01 Salaries & Wages					
Total Positions (FTE)	51.300	49.300	49.300	**49.300**	
Position Salaries	$4,626,660	$4,789,288	$4,789,288	**$4,790,381**	$1,093
Other Salaries					
Summer Employment					
Professional Substitutes					
Stipends					
Professional Part Time					
Supporting Services Part Time		269,200	269,200	**269,200**	
Other					
Subtotal Other Salaries	300,002	269,200	269,200	**269,200**	
Total Salaries & Wages	4,926,662	5,058,488	5,058,488	**5,059,581**	1,093
02 Contractual Services					
Consultants		1,171,697	1,171,697	**1,030,896**	(140,801)
Other Contractual		3,532,402	3,532,402	**3,076,823**	(455,579)
Total Contractual Services	4,392,265	4,704,099	4,704,099	**4,107,719**	(596,380)
03 Supplies & Materials					
Textbooks					
Media					
Instructional Supplies & Materials					
Office		12,296	12,296	**12,296**	
Other Supplies & Materials		49,562	49,562	**49,562**	
Total Supplies & Materials	16,848	61,858	61,858	**61,858**	
04 Other					
Local/Other Travel		2,042	2,042	**2,042**	
Insur & Employee Benefits					
Utilities					
Miscellaneous					
Total Other	321	2,042	2,042	**2,042**	
05 Equipment					
Leased Equipment		31,184	31,184	**22,919**	(8,265)
Other Equipment					
Total Equipment	22,919	31,184	31,184	**22,919**	(8,265)
Grand Total	$9,359,015	$9,857,671	$9,857,671	**$9,254,119**	($603,552)

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

Elton Stokes, Director II

CAT	DESCRIPTION	10 Mon	FY 2011 ACTUAL	FY 2012 BUDGET	FY 2012 CURRENT	**FY 2013 REQUEST**	FY 2013 CHANGE
	445 Dept 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**	
1	27	Applications Developer III	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	1.000	1.000	1.000	**1.000**	
1	25	Applications Developer II	2.000	3.000	3.000	**3.000**	
1	25	Technical Analyst	1.000	1.000	1.000	**1.000**	
1	23	Applications Developer I	1.000	1.000	1.000	**1.000**	
2	16	Administrative Secretary III	1.000	1.000	1.000	**1.000**	
1	13	Fiscal Assistant I	.800	.800	.800	**.800**	
	Subtotal		**11.800**	**12.800**	**12.800**	**12.800**	
	426 Instructional Technology Application Services						
1	O	Supervisor	2.000	2.000	2.000	**2.000**	
2	BD	Instructional Specialist	2.000	2.000	2.000	**2.000**	
1	27	Database Administrator III	1.000	1.000	1.000	**1.000**	
2	25	Applications Developer II	1.000	1.000	1.000	**1.000**	
2	25	ETL Analyst/Programmer	1.000	1.000	1.000	**1.000**	
	Subtotal		**7.000**	**7.000**	**7.000**	**7.000**	
	442 Administrative Student Systems & Operations						
1	K	Supervisor	1.000	1.000	1.000	**1.000**	
2	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	2.000	**2.000**	
2	25	ETL Analyst/Programmer	1.000	1.000	1.000	**1.000**	
1	25	Technical Analyst	1.000				
1	24	Student Systems Specialist	1.000	1.000	1.000	**1.000**	
1	23	Applications Specialist I	2.000	1.000	1.000	**1.000**	
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		**12.000**	**10.000**	**10.000**	**10.000**	
	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	2.000	2.000	2.000	**2.000**	
1	27	Development Proj Manager	2.500	2.500	2.500	**2.500**	
1	25	Applications Developer II	6.000	6.000	6.000	**6.000**	
1	25	Technical Analyst	1.000	1.000	1.000	**1.000**	
1	15	Fiscal Assistant II	1.000	1.000	1.000	**1.000**	