

FA.04
Information Technology
Department of Budget and Management

Operating Budget Data

(\$ in Thousands)

	FY 00	FY 01	FY 02		% Change
	<u>Actual</u>	<u>Working</u>	<u>Allowance</u>	<u>Change</u>	<u>Prior Year</u>
General Fund	\$57,093	\$49,156	\$46,948	(\$2,208)	(4.5%)
Special Fund	20,763	13,162	11,702	(1,459)	(11.1%)
Reimbursable Fund	<u>12,526</u>	<u>19,034</u>	<u>18,751</u>	<u>(282)</u>	<u>(1.5%)</u>
Total Funds	\$90,382	\$81,351	\$77,402	(\$3,949)	(4.9%)

- The fiscal 2002 allowance includes a \$5 million increase for the establishment of a Program/Contract Management office within the agency. This is offset by a \$5.4 million decrease due to cessation of development/implementation of the new statewide budgeting system.
- The allowance also reduces the personnel benefits system contract by \$15 million.

Personnel Data

	FY 00	FY 01	FY 02	
	<u>Actual</u>	<u>Working</u>	<u>Allowance</u>	<u>Change</u>
Regular Positions	145.00	160.00	153.00	(7.00)
Contractual FTEs	<u>25.00</u>	<u>16.60</u>	<u>13.00</u>	<u>(3.60)</u>
Total Personnel	170.00	176.60	166.00	(10.60)

Vacancy Data: Regular

Budgeted Turnover: FY 02	9.30	6.08%
Positions Vacant as of 12/31/00	29.00	18.13%

- The agency abolished 7 regular and 3.6 contractual positions due to a reorganization to better align specific functions.

Note: Numbers may not sum to total due to rounding.

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Analysis in Brief

Issues

Status of Major Information Technology Systems Statewide: State spending in fiscal 2001 totals nearly \$570 million on information technology (IT) related goods and services. In recent years, the State has also spent millions on the development of IT projects that have produced inadequate computer systems. This issue highlights the status of State IT projects. **It is recommended that the Department of Budget and Management (DBM) address efforts that it plans to undertake to improve the design and development of major information technology systems throughout State agencies.**

IT Development Costs Need To Be Identified Separately: Project development costs are currently budgeted with operating expenditures even though the activity is not an ongoing operation. **Budget bill language is recommended that requires major IT development project costs to be budgeted in separate appropriation level programs.**

Reporting of IT Spending Plans Needs Additional Work: The reporting of IT spending plans by several agencies contains data omissions that limit its usefulness. Also, there are other data issues with the Office of Information Technology (OIT) electronic submissions. **Budget bill language is recommended to modify the Information Technology Project Request (ITPR) submissions to provide more detailed budget information on IT budget requests and later revised to reflect the Governor's allowance.**

Audit Disclosed Significant Deficiencies in Procurement and Monitoring Activities: The audit report disclosed significant deficiencies in procurement and monitoring activities related to the department's information technology contracts and grants. Additionally, significant problems in the area of the department's statewide telecommunication responsibilities are also noted. **The department should brief the committees on the status of its actions to implement procedures to improve the procurement and monitoring of information technology contracts and grants, as well as its efforts to resolve long-standing issues within the Division of Telecommunications.**

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Recommended Actions

	<u>Funds</u>	<u>Positions</u>
1. Add budget language which modifies the Information Technology Project Request.		
2. Add budget bill language to permit use of the ITIF to fund a portion of the fiscal 2001 public safety deficiency and other IT projects in DBM.		
3. Add budget bill language to require DBM to create separate budget programs for major information technology development projects.		
4. Add language to require legislative review of all projects in the Information Technology Investment Fund.		
5. Add language which restricts the use of funds for the establishment of the Program Management Office.		
6. Reduce by 50% the allowance for the "50-65-80" initiative.	\$ 2,614,000	
7. Reduce allowance for positions abolished by the agency.	438,743	
8. Delete vacant position.	57,647	1.0
9. Delete 25% of operating costs associated with the High Speed Data Network.	503,750	
10. Reduce the reimbursable fund budget by \$141,297.	141,297	
11. Adopt committee narrative directing DBM to define web-enabled services.		
Total Reductions	\$ 3,755,437	1.0

Updates

The OIT Improves Its Grade for Information Technology from C to B: The second installment of the Government Performance Project survey attributes much of the improvement in Maryland's grade to its plan to build a multimedia high bandwidth communications network.

Two Bills Introduced in the 2001 Session Impact Information Technology: Two legislative bills if enacted will have an impact on information technology. The bills focus on equal access by businesses to State telecommunication infrastructure and the procurement process.

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FA.04
Information Technology
Department of Budget and Management

Operating Budget Analysis

Program Description

The Department of Budget and Management's (DBM) Office of Information of Technology (OIT) advances the appropriate use of information technology to meet the needs of citizens for quality, value, and responsiveness in the provision of services by Maryland State government. The office develops and administers policies, standards, and planning processes to support the management and procurement of information technology (IT) systems, services, and equipment. Further, the office develops, maintains, and operates statewide IT applications and telecommunications systems. Under the direction of the Chief of Information Technology, the office makes budgetary and priority recommendations to the Secretary and the Governor and plans the effective, comprehensive, and coordinated use of IT to further State objectives.

The office also manages the Information Technology Investment Fund (ITIF), which is a non-lapsing, special fund that encourages State agencies to be more effective in their use of information technology. The fund is used for two main purposes: (1) to fund education-related information technology projects; and (2) to fund State information technology projects.

Governor's Proposed Budget

As shown in **Exhibit 1**, the fiscal 2002 allowance for the Office of Information Technology declines by \$3.9 million (4.9%). General funds decrease by \$2.2 million (4.5%), special funds decline by \$1.5 million (-11.1%), and reimbursable funds decrease marginally by \$282,000 (-1.5%).

Personnel items account for a \$284,931 increase in the fiscal 2002 allowance. This includes funding for the annualization of the fiscal 2001 increments and cost-of-living allowance and the general salary increase. The agency cut 10.6 (7 regular and 3.6 contractual) positions in the fiscal 2002 allowance due to a reorganization to better align functions and maximize the use of available resources. The fiscal 2002 allowance for contractual positions declines by \$102,000. Funding for 2 of the 7 regular positions are non-funded, while funding for 5 regular positions (\$439,000) remains in the allowance. The agency plans to reallocate savings to a resource pool to be used for obtaining specialized expertise within the organization teams as needed. It is not clear to what type of "specialized expertise" the agency is referring. Is this fund source for training of existing personnel or to secure consulting services? In any case, it is being set-aside for activities for which it was not intended. **The Department of Legislative Services (DLS) recommends deleting the funding associated with the 5 regular positions. The agency should fund these activities out of existing revenues.**

Exhibit 1

**Governor's Proposed Budget
Information Technology
(\$ in Thousands)**

How Much It Grows:	General Fund	Special Fund	Reimb. Fund	Total
2001 Working Appropriation	\$49,156	\$13,162	\$19,034	\$81,351
2002 Governor's Allowance	<u>46,948</u>	<u>11,702</u>	<u>18,751</u>	<u>77,402</u>
Amount Change	(\$2,208)	(\$1,459)	(\$282)	(\$3,949)
Percent Change	(4.5%)	(11.1%)	(1.5%)	(4.9%)
Where It Goes:				
Personnel Expenses				
Abolished/transferred positions				(\$386)
Fiscal 2002 general salary increase				164
Increments, fiscal 2001 increase phase-in and other				391
Employee and retiree health insurance rate change				139
Retirement contribution rate change				(78)
Turnover adjustments				43
Other fringe benefit adjustments				13
Subtotal				\$285
Major Technology Systems				
Web-enabling applications or information from applications for internal and external customers (50-65-80 initiative)				7,328
The rollout of the Budgeting Preparation Analysis System (BPAS) is halted prior to full implementation				(5,430)
The Personnel and Benefits Information System (PBIS) contract is reduced to more accurately reflect actual expenditures				(15,726)
Provides Internet Service Provider (ISP) services statewide				2,000
Subtotal				(\$11,828)
Telecommunications Expenses				
Decentralization of 14 Centrex accounts from the division to the respective agencies. Vendors forward invoices directly to the agencies for payments resulting in cost savings				(365)
Less than anticipated expenditures pertaining to the Telecommunications Access of Maryland (TAM) program				(545)
Less than anticipated expenditures for consultant services related to the implementation of net.work.Maryland				(166)

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Where It Goes:

Subtotal	(\$1,076)
Other Expenses	
Creation of an Application Service Provider account to fund future e-commerce-related initiatives	3,000
Establishment of a Program/Contract Management office within the agency to provide management and contract oversight to information technology projects statewide	5,000
Consulting services for feasibility studies and design reviews of technology being developed or planned	500
Miscellaneous	169
Subtotal	\$8,669
Total	(\$3,949)

Note: Numbers may not sum to total due to rounding.

OIT Fiscal 2002 System Development Initiatives

Other non-personnel initiatives partially offset the decrease associated with IT system development, such as the "50-65-80" initiative (\$7.328 million), BPAS (\$5.4 million), PBIS (\$15.7 million), and providing Internet Service Provider services statewide (\$2 million). Also, the OIT requests funds for two new programs, creating an Application Service Provider (ASP) account in the ITIF (\$3 million) and establishing a Program Management Office (PMO) (\$5 million). A fuller discussion of these initiatives is provided below.

50-65-80 Initiative: \$5.2 Million

The OIT requests funds to implement the e-government initiative (Chapter 5, Acts of 2000) that requires all units of the executive branch (with the exception of public institutions of higher education) to have 50% of its public information and services available over the Internet by 2002. The required percentage of public information available over the Internet increases in each of two subsequent years to 65% and 80%, respectively. As shown in **Exhibit 2**, \$7.328 million is in the allowance for the 50-65-80 initiative. The footnote in the table indicates that part of this funding is for the development of the statewide Internet Portal. The agency has reported in other documentation that the Internet Portal initiative accounts for \$2.1 million of the line item and presumably the remainder (\$5.228 million) is to support the 50-65-80 initiative.

The OIT requests \$5.2 million to fund the "50-65-80" initiative. The purpose is to put back-end interfaces into the Financial Management Information Systems (FMIS) in order to permit e-government procurement transactions. According to the law creating this initiative, the mandate applies to "public information and services." While web-enabling certain components of FMIS is a laudable effort, most of the information and services of this information system are out of the public domain. The only exception

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may be personnel and benefit services to State employees. However, the PBIS development plan calls for those services to be web-enabled. The Department of Legislative Services recognizes

Exhibit 2

Information Technology Project Request Department of Budget and Management

Summary of All Funded Agency IT Projects	Actual FY 2000	Current Year FY 2001	Request FY 2002	Allowance FY 2002	Mid Range FY 2003-05	Long Range FY 2005
Operating Projects						
OTI 50/65/80	\$0	\$252,500	\$4,664,233	\$7,327,867	\$6,384,756	\$2,452,132
Baseline	n/a	n/a	11,438,930	9,075,193	9,347,449	9,627,872
Program Management Office	0	0	5,105,000	5,000,000	5,258,000	5,411,000
BPAS	5,761,053	5,429,601	6,721,499	\$0	1,500,000	500,000
FMIS Integrated System	13,049,026	16,937,872	19,062,639	18,663,788	20,968,905	23,065,794
Internet Portal	0	0	63,584	0	0	0
ISP Services	0	0	2,000,000	2,000,000	2,000,000	2,000,000
PBIS	2,582,699	22,788,416	23,669,970	7,061,905	33,000,000	6,000,000
Telecommunications Division	20,338,414	28,864,240	28,943,372	28,273,169	92,615,000	30,866,000
Subtotal	41,731,192	74,272,629	101,669,227	77,401,922	171,074,110	79,922,798
Capital Projects						
Statewide Wireless Public	2,000,000	5,000,000	5,000,000	4,000,000	26,000,000	65,000,000
High Speed Data Network	6,000,000	10,600,000	11,000,000	10,000,000	23,400,000	0
Subtotal	8,000,000	15,600,000	16,000,000	14,000,000	49,400,000	65,000,000
Agency Totals	\$49,731,192	\$89,872,629	\$117,669,177	\$91,401,922	\$220,474,110	\$144,922,798

Notes

- (1) The Internet Portal is included in the OTI 50/65/80 project.
- (2) The OTI was asked about missing information in the baseline budget. They reported it was an oversight and would resubmit the table at a later date.

Source: Department of Budget and Management

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that the OIT is responsible for providing direction and leadership to other executive branch agencies in this effort. Precedence should be given to those IT enhancements that web-enable information and services for the general public. **DLS recommends reducing the requests for the "50-65-80" initiative by 50% (\$2.6 million) in recognition that the many of the web-enabled activities produced by the department are out of the public domain.**

The office is currently gathering data from executive branch agencies to construct a baseline inventory of the State's technology assets. This information is valuable for assessing what services and information are currently web-enabled and what information systems and data will require conversion. The level of sophistication needed to reach the targeted mandates within the prescribed time frames may be a small challenge in some agencies and a daunting task in others. The baseline inventory will identify where resources are most needed. The agency expects the baseline inventory to be completed by mid-April 2001. **DLS also recommends the OIT establish standards that clearly define what it means to be "50-65-80" web-enabled.**

Internet Portal: \$2.1 million

The OIT could not provide any detailed budgetary information on the use of these funds beyond the fact that a portion will be used to develop and maintain web pages such as the eMaryland Portal. A State web portal, such as those developed by several states (including Idaho, Indiana, Maine, Michigan, Minnesota, Virginia, and Utah) is a "one-stop shop" web site that permits citizens to navigate seamlessly through the maze of government and link to the specific service or information they are seeking. The OIT entered into agreements valued at approximately \$570,000 with the University of Maryland to develop a pilot for the portal in fiscal 2001. During the Maryland Technology Showcase in December 2000, a demonstration of Maryland's e-portal showed its potential. When fully operational, Maryland citizens will be able to move through the supermarket of government services where information and services are displayed like products on grocery shelves. The e-portal web site initiative scheduled to launch February 1, 2001, has been delayed. Difficulty in processing the Technical Services Procurement is cited for the delay. The OIT expects to outsource operations and maintenance of the portal to an outside vendor.

Budgeting Preparation Analysis System: (\$5.4 million)

The fiscal 2002 allowance includes drastic reductions in technology system development compared to last year's working appropriation. Work stoppage on the statewide budget system accounts for (\$5.4) million of the decrease. Testing of the system revealed poor response time, numerous bugs in the application, and greater demands for processing power. A more detailed account of BPAS is presented as an issue later in this analysis.

Personnel and Benefits Information System: (\$15.7 million)

The Personnel and Benefits Information System accounts for a (\$15.7) million difference between the allowance and the fiscal 2001 appropriation. The Request for Proposal (RFP) was released on October 31,

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2000, or about two months later than projected during the 2000 session. The agency is in the process of evaluating responses to the RFP, selecting a vendor, preparing the system for rollout, and deploying the system to the 60-plus user agencies. As shown in **Exhibit 3**, the design and development of the system will begin during July 2001. The first phase includes development and evaluation of a prototype system; the second will be development and validation of the system. The final phase of preparation consists of executing a parallel test and evaluating the results against the current systems. **The agency should be prepared to update the committees on the current status of development of the Personnel and Benefits Information System (i.e., has a vendor been selected; if so, who is the vendor; and what additional funds are needed to finalize development on the project.** The agency advises that none of the funds appropriated for PBIS in fiscal 2001 have been encumbered, but projects that all funds will be encumbered by the close of the current fiscal year. Hence, the size of the allowance reflects concerns by the agency over whether a larger appropriation than requested could be spent in fiscal 2002.

Exhibit 3

PBIS Implementation Timetable

July 2001	Project begins
October 2001	Prototype developed
July 2002	Parallel testing begins
January 2004	Statewide rollout

Source: Department of Budget and Management

Internet Service Provider: \$2.0 million

The OIT includes \$2 million in the allowance to establish Internet Service Provider service to all State agencies. There are a number of individual agencies providing access to an ISP to utilize the Internet. It is not uncommon for a State building that has multiple agencies occupying it to each have their own independent access to the Internet. ISP service is needed especially in light of the State's "50-65-80 initiative. The net.work.Maryland will assist in the delivery of high speed Internet access both from egress from government and ingress from the public perspective. The distributed costs of this high speed access would yield cost savings over the aggregate of individual circuits procured by each agency.

Application Service Provider Consortium: \$3.0 million

Two new initiatives account for the majority of the expenditures in this category. The Application Service Provider Consortium project is a \$3 million E-Maryland Initiative (Chapter 6, Acts of 2000). The new law, effective July 1, 2000, established the "E-Maryland" Application Service Provider Consortium and a management committee to promote the deployment of Internet-based technologies in the State. To provide a funding vehicle for ASP projects, the law set up an ASP account within the ITIF. According

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to DBM, the University of Maryland, College Park would receive \$2 million to develop Internet applications beneficial to State government and small businesses. The remaining \$3 million would be dedicated to the newly established ASP account for future projects. The funds were transferred to the OIT in the form of a grant from the Maryland Enterprise Investment Fund, a program of the Department of Business and Economic Development (DBED). The projects would be recommended by the ASP management team and reviewed by the budget committees like other ITIF projects. The department has identified three tentative projects still in the conceptual stage of development. These projects include Business to Government and Government to Business (e-commerce) (\$150,000 - \$250,000), small business support (\$1.75 million - \$2.35 million) and a challenge grant competition (up to four @ \$500,000 per grant). The agency advises that the ASP Consortium Management Committee has not formally approved any of the projects. The aforementioned projects are still in the conceptual stage and all costs are estimated.

Program Management Office: \$5.0 million

DBM requests funds in the allowance (\$5 million) to establish a Program Management Office, which will report to the Chief of Information Technology. The purpose is to provide program management assistance to all State agencies and implement contract monitoring procedures to adequately administer contracts. The PMO's mission is to ensure that the State's IT investments support the State's mission and provide the intended benefit to the State in a way that is cost-effective. Some IT systems including BPAS have experienced problems costing the State millions of dollars. The office will operate similarly to the model for program management used during the Y2k conversion of the computer system. The OIT established a Program Management Office and with the assistance of an outside contractor, managed the contracts and monitored the activities of agencies engaged in the conversion.

DLS is concerned with the failure rate of major and minor IT development projects. DBM is also concerned and proposes that the first step towards reform is the creation of a PMO to assist the monitoring and management of agency IT projects and related contracts. Budget bill language is recommended to restrict the use of a \$5 million general fund appropriation for this purpose until DBM has submitted a detailed action plan on the steps it will take to mitigate future IT development failures.

Performance Analysis: Managing for Results

Exhibit 4 shows the performance measures for the OIT between 1999 and 2002. This submission is a slight improvement over last year's in that there are some baseline data included. Out of the 15 outcome measures found in the Governor's budget book (Vol. 1, pp. 508-18), only six contain baseline data. The Application System Management is the only division with baseline data. The agency did not respond to the DLS recommendations regarding the agency's performance measures. Last year, DLS suggested the agency develop goals, objectives, and performance measures related to the quantity and quality of Information Technology Project Requests (ITPRs) received from executive branch agencies. A similar recommendation was made with regard to the high speed data network.

Exhibit 4

**Program Measurement Data
Information Technology
Fiscal Years**

	<u>Actual 1999</u>	<u>Est. 2000</u>	<u>Actual 2000</u>	<u>Est. 2001</u>	<u>Est. 2002</u>	<u>Ann. Chg. 99-00</u>	<u>Ann. Chg. 00-02</u>
Division of Policy and Standards							
% of IT Advisory Council rating performance as satisfactory or better	n/a	80%	n/a	95%	85%	n/a	n/a
% of critical State business processes implementing appropriate procedures for off-site, backup data storage	n/a	n/a	n/a	100%	100%	n/a	n/a
Application Systems Management Division							
% of system users who rate the ease of use as satisfactory or better	n/a	n/a	71%	72%	73%	n/a	1.4%
% of system user who rate the effectiveness systems as satisfactory or better	n/a	n/a	83%	84%	85%	n/a	1.2%
% of systems are available during standard operating hours	n/a	n/a	98%	98%	98%	n/a	0.0%
Telecommunications Division							
% of requests for service processed three days or less	n/a	n/a	n/a	80%	80%	n/a	n/a
% reduction in the quarterly billing	n/a	n/a	n/a	25%	25%	n/a	n/a
% of new, critical IT projects in executive agencies that are running on-time, on-budget, and on-target to meet identified requirements	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a = new measure for which data is not available

Source: Department of Budget and Management, Office of Information Technology

Division of Policy Standards

The Division of Policy Standards develops and administer policies, standards, and planning processes to support the management and procurement of IT systems, services, and equipment. The division also provides leadership to, and support for the statewide IT governance structure, which includes the

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Information Technology Advisory Council (ITAC). ITAC is composed of the chief information technology officers in executive branch agencies. It would be useful to know how effective the agency has been in exercising governance of ITAC. Measures that target the timeliness and quality of ITPR submissions is an example of effective governance by the agency.

Application Systems Management Division

The Application Systems Management Division assists Maryland's policy makers and program and financial managers by facilitating access to information to improve management, financial, and human resource decision-making. Two measures of the division are to have an 80% satisfaction rating for ease of use and availability of systems. On the ease of use measure, users gave a rating of 71% in 2000 and anticipate no better than a 73% rating by 2002. System availability does not appear to be a problem with a rating of 84% on this measure.

Division of Telecommunications

This division is responsible for the State's telecommunications resources including voice, radio, video, and data services. With the high speed data network coming on-line in the fall of 2001, the agency needs to begin developing goals, objectives, and performance measures.

DLS recommends that the office should develop goals, objectives, and performance measures for the following:

- **high speed network (i.e., number of users and efficiency measures);**
- **agency progress on the 50-65-80 initiative; and**
- **Information Technology Master Plans and Project Requests.**

Information Technology Investment Fund

Budget language in the fiscal 2001 budget requires DBM to submit a revenue statement showing the unencumbered balance at the close of fiscal 2000. The department is also required to submit a status report on each project approved and funded in fiscal 2000 prior to the release of fiscal 2001 funding. DLS found the information satisfactory and after review of fiscal 2001, ITIF projects recommended conditional approval of one of two projects. The status report shows that in fiscal 2000 the ITIF had a beginning fund balance of \$2.655 million and revenues of \$7.156 million for a total of \$9.811 million. The ITIF had expenses of \$8.094 million in fiscal 2000, leaving an unencumbered balance of **\$1.716 million**. For fiscal 2001, revenues are projected at **\$8.368 million**. Fiscal 2001 ITIF revenues include \$3 million from DBED. The purpose of the DBED funds is to implement Chapter 6, Acts of 2000, which establishes the CEO Board of Advisors for E-Commerce and creates the "E-Maryland" Application Service Provider Consortium at the University of Maryland. The OIT initially reported that funding from DBED for this

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initiative was \$5 million. The other \$2 million was transferred to the University of Maryland to support its role in the project. **Exhibit 5** shows the fund balance and current status of revenues in the technology fund. The ITIF revenue statement, which reflects activity up to September 2000, shows the source of special revenues projected in fiscal 2001, as shown in **Exhibit 6**.

Exhibit 5

**Information Technology Investment Fund
Revenues and Expenditures
Fiscal 2000**

	<u>Actual Fiscal 2000</u>	<u>Projected Fiscal 2001</u>
Opening Fund Balance	\$2,654,558	\$1,716,724
Revenues		
General Fund (actual)	1,500,000	1,500,000
Special Fund (actual)	5,656,266	3,868,000
DBED Transfer		3,000,000
Total Revenues	\$9,810,824	\$10,084,724
Total Expenses	\$8,094,100	\$534,132
Net over/(under)	\$1,716,724	\$9,550,592

Source: Department of Budget and Management, Office of Information Technology

Exhibit 6

**Information Technology Investment Fund
Revenue Statement**

<u>Revenue Sources</u>	FY 2001 Total				
	<u>FY 2000 Total Actual</u>	<u>FY 2001 Projection</u>	<u>Actual to Date</u>	<u>Estimated Remaining</u>	<u>Total (Actual + Estimated)</u>
Appropriation	\$1,500,000	\$1,500,000	\$1,500,000	\$0	\$1,500,000
Commissions, Rebates, Refunds, Rate Reductions, or Telecommunications Bypass Agreements					
AT&T Bypass Revenue	823	0	4,359	0	4,359
MCI Bypass Revenue	12,889	24,000	6,084	17,916	24,000
Bell Atlantic Local Access Revenue	4,821,660	3,000,000	1,078,962	1,921,038	3,000,000
MCI Local Access Revenue	85,167	24,000	77,097	(53,097)	24,000
AT&T/TCG Local Access Revenue	0	0	0	0	0
AT&T SCS Revenue	74,234	360,000	0	360,000	360,000
AT&T SCS DA Revenue	31,898	40,000	0	40,000	40,000
Telecom Vendor Refunds	0	0	0	0	0
Telecommunications Billing Audit Refund	0	0	0	0	0
Pay Phone Commissions					0
AT&T Pay Phone Commission	197,137	216,000	58,768	157,232	216,000
Bell Atlantic Pay Phone Commission	80,802	84,000	12,881	71,119	84,000
Gifts, Contributions, and Grants	0	0	0	0	0
Investment Interest	347,686	120,000	47,238	72,762	120,000
Other	3,971	\$3,000,000	\$0	\$3,000,000	\$3,000,000
Total	\$7,156,267	\$8,368,000	\$2,785,389	\$5,586,970	\$8,372,359
Ending Fiscal 2000 Fund Balance	\$2,654,122	\$1,716,724	\$1,716,724		\$1,716,724
Total Fiscal 2001 Fund Projection	\$9,810,389	\$10,084,724	\$4,502,113		\$10,089,083

Note: Numbers may not sum to total due to rounding. Data reflects through September 2000.

Source: Department of Budget and Management; Office of Information Technology

DLS recommends directing \$7 million in the ITIF fund balance for the purpose of funding part of the Department of Public Safety and Correctional Services (DPSCS) fiscal 2001 deficiency request, as well as to permit the ITIF to be used for the purpose of funding two projects in the DBM budget for fiscal 2002. The specific language to effect this recommendation follows:

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SECTION XX. AND BE IT FURTHER ENACTED, That in recognition of spending affordability constraints, the General Assembly authorizes the Department of Budget and Management to use the fund balance of the Information Technology Investment Fund (ITIF) to fund a portion of the costs of the fiscal 2001 deficiency for information technology upgrades within the Department of Public Safety and Correctional Services, and to use up to \$900,000 in fiscal 2002 ITIF revenues for the purpose of an electronic document processing system and capital budget information system. Further provided that the following fiscal 2001 deficiency appropriation is reduced by the following amount to permit use of the ITIF fund balance:

<u>FA01.04</u>	<u>Division of Policy Analysis</u>	<u>\$500,000</u>
<u>FA06.01</u>	<u>Capital Budget Analysis and Formulation</u>	<u>\$400,000</u>
<u>QA01.02</u>	<u>Information Technology and Communications Division</u>	<u>\$7,000,000</u>

DLS also recommends extending the use of budget bill language introduced in last year's legislative session to place controls and conditions on the release of ITIF funds. Specifically, DLS recommends adding the following language to the budget bill under the Office of Information Technology (FA04.01) as follows:

Further provided that no funds shall be expended for the Information Technology Investment Fund until the Department of Budget and Management provides a summary showing the unencumbered balance in the fund as of the close of fiscal 2001 and a listing of any encumbrances, a listing of the projects including supporting detail for each project for which funds are requested in fiscal 2002, and a progress report on each project approved and funded in fiscal 2001. The committees have 60 days in which to review and comment on the proposed projects.

Explanation: The language requires legislative review of all projects in the Information Technology Investment Fund. Further, progress reports for projects funded in fiscal 2001 must be submitted to the budget committees prior to the release of fiscal 2002 funding.

Issues

1. Status of Major Information Technology Systems Statewide

In Maryland, information technology spending grew from \$332 million to \$505 million, an increase of nearly 53% between fiscal 1998 and 2000. In fiscal 2000, IT expenditures represented about 3% of the total State budget. As IT budgets increase so too does the need to properly plan, design, monitor, manage, and implement new information systems. The State's record of moving projects along that continuum on-time and on-budget is not good. The State has experienced some successes (State tax system, certain components of the financial management system, and automation of the legislature) and some failures (State personnel system, State budgeting system, and Juvenile Justice information system).

The status of major IT projects involve the following agencies:

- Department of Juvenile Justice (DJJ)
- Department of Budget and Management
- Department of Human Resources (DHR)
- State Retirement Agency (SRA)
- State Treasury – Office of the State Treasurer
- Department of Public Safety and Correctional Services

Agency Status Report

Department of Juvenile Justice

Automated Statewide Support and Information System (ASSIST): The Annotated Code of Maryland requires the Department of Juvenile Justice to develop, implement, and maintain a comprehensive Client Information System (CIS). The ASSIST CIS replaced a ten-year old system. During fiscal 1999, work began on ASSIST and in November 1999, the system became operational. An audit by the Office of Legislative Audits found the agency incurred IT expenditures totaling \$14.5 million for the period of July 1, 1997, to June 30, 2000. Inadequate monitoring of contracts and related vendor payments are some of the problems contributing to over-expenditures of about \$5.4 million over the three-year period. No master plans outlining the technical specifications for the system resulted in a product that cannot meet the departments needs.

Department of Budget and Management

Budgeting Preparation and Analysis System (BPAS): The project began in 1997 as a \$5.99 million budget system development effort, designed to meet the business, process, and technology requirements as defined by the State. Several contract modifications later, the cost of BPAS ballooned to \$18.1 million. After the State accepted the system, the following issues led to a stop work order to the vendor, Information Builders, Inc., on October 25, 2000:

- poor application response time;
- numerous bugs within the application;
- much higher processing power demands than originally anticipated; and
- the requirement of major fiscal investment to achieve reasonable performance levels.

In January 2001, the Department of Budget and Management decided to discontinue the development and implementation of BPAS. DBM is currently exploring the availability of commercial products.

Department of Human Resources

Maryland Children’s Electronic Social Services Information Exchange (MD CHESSIE): MD CHESSIE will provide Maryland with an automated child welfare case management information system that also incorporates the requirements for the federally mandated Adoption and Foster Care Analysis and Reporting System (AFCARS). MD CHESSIE is an on-line, interactive system that provides over 545 federal, state, and local requirements. The system’s database contains over 400 data elements, provides intuitive logic and help functions for the caseworker, and electronically interfaces with the statewide Department of Human Resources Information Systems (DHRIS).

The five-year project has an estimated cost of \$65 million. In fiscal 2001, DHR completed the planning phase of the project and secured the monitoring contractor. The department has also solicited bids for the development and implementation of CHESSIE. The selected contractor is expected to begin work in early June 2001. **Exhibit 7** shows the budget for the MD CHESSIE system.

Exhibit 7

Department of Human Resources
MD CHESSIE Budget

<u>Fund Type</u>	<u>Actual Reg Year FY00</u>	<u>Current Reg Year FY01</u>	<u>Budget Req Year FY02</u>	<u>Project Mid Rng FY03-05</u>	<u>Projected Long Rng FY05+</u>
General	\$271,429	\$6,484,416	\$9,819,255	\$8,466,460	\$5,149,200
Federal	277,689	6,633,957	9,819,259	9,265,460	5,149,200
Totals	\$549,118	\$13,118,373	\$19,638,514	\$17,731,920	\$10,298,400
	<u>FY00 Actuals</u>	<u>FY01 Approp.</u>	<u>FY02 Allowance</u>		
	\$1,994,702*	13,118,373*	\$7,366,705*		

* Corrected budget numbers submitted by DHR

Source: Department of Budget and Management

Electric Universal Service Program (EUSP): Computer enhancements were made to the existing application system to process customer applications in the EUSP program. The EUSP provides electric bill relief to low-income customers. Prior to the new EUSP program (which began July 1, 2000), DHR's Office of Home Energy Program (OHEP) had an automated computer system that ran the agency's Maryland Energy Assistance Program (MEAP) and transferred participation information to the utilities. The agency wanted to develop a system that would handle both the EUSP and MEAP. To do so meant scrapping the existing but working computer application and replacing it with a new system designed to operate both programs while utilizing a single database. There were problems with software and hardware that affected performance. Bugs in the software caused a near halt of the automated processing of participant applications. Network connectivity at many of the local administering agencies around the State also contributed to the inefficiency of the system. Damaged network cards were discovered on the server.

The EUSP development began in March 2000 with a projected implementation date of September 30, 2000. The Verizon strike during the summer slowed DHR's ability to set up the wiring of the system between central headquarters and the local administering agencies (LAAs). There was a directive to push back the "go live" date to August 4, 2000. This new target date meant that testing would occur while the system was operational. Between August and November 2000, the system performed adequately. In the first weeks of November, as the volume of applications increased from LAAs, the system was

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overwhelmed and problems arose. By February 2001, OHEP recorded a backlog of approximately 26,358 applications. DHR vowed that a contractor hired to handle the backlog would complete the input of applications by mid-February 2001. According to the agency the target was met. Currently, the system has been repaired and is functioning properly. The agency has implemented a “get well” strategy that involves hiring a consultant (Gartner Group) to assess what went wrong and recommend strategies on any future enhancements to the system.

State Retirement Agency

Strategic System Project: The Maryland State Retirement Agency has embarked on a comprehensive strategic system project which will result in an integrated electronic data management and customized pension administration system. The agency’s computer upgrade is designed to improve document management, process data more efficiently, and web-enable access to system services. Chapter 556, Acts of 1998 governs the agency’s spending authority and grants the agency up to \$37.1 million in spending authority for the computer project. The agency may also draw on its statutory spending limit for ongoing administrative operations. The project’s “go live” date set for October 2000 has been pushed back to October 2001. The delays will result in approximately \$1.4 million in additional costs for the agency. The prime contractor, SYSCOM, Inc. of Baltimore, will be required to absorb its additional costs for the fixed-price contract; these costs are estimated to be approximately \$5 million. Factors that contributed to the delay include:

- the agency’s inability to perform dual tasks of administrative responsibilities and oversight of the new computer project;
- information systems personnel not adequately trained in the computer languages on which the new system was based, therefore not able to review vendors work product; and
- the major subcontractor, responsible for developing the “retirement application” component of the system, underestimated the level of effort required to perform task.

In October 2000, at the recommendation of the project’s steering committee, the agency terminated the project director and project manager. An interim project manager was named until the agency and vendor identify qualified candidates for permanent project director/project manager roles. The agency was unsuccessful in hiring individuals with the required expertise and experience off the State contract. The agency subsequently interviewed individuals recommended by the vendor and identified two qualified candidates to serve as project manager and test manager. The selected candidates were procured through the contractual arrangement with the vendor. The agency states that the salaries of the project manager (\$150/hour) and the test manager (\$106/hour) are comparable with rates charged by the other vendors in the industry. Both candidates joined the project in January 2001. In addition, the agency is taking steps to ensure that existing information services division staff are immediately trained in the necessary computer languages to oversee the procurement and handle the system’s operations after the “go live” date (with assistance under warranty from the vendor).

Additional legislative and agency change orders pushed the cost up an additional \$4.6 million. There appears to be sufficient statutory spending authority to absorb these costs, but only if the agency’s

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administrative budget is utilized as well. The aggressive and tight schedule for the completion of the project allows for little “wobble room” if the revised “go live” date is to be achieved. **Exhibit 8** illustrates the budget for the strategic system project.

Exhibit 8

**State Retirement Agency
Strategic System Project Budget**

<u>Fund Type</u>	<u>Actual Reg Year FY97</u>	<u>Actual Reg Year FY98</u>	<u>Actual Reg Year FY99</u>	<u>Actual Reg Year FY00</u>	<u>Current Reg Year FY01</u>	<u>Budget Req Year FY02</u>	<u>Project Mid Rng FY03-05</u>
Special	\$86,192	\$4,468,039	\$13,564,340	\$11,414,107	\$4,190,903	\$623,357	\$2,166,111

Note: Spending authority for this project expires at the end of fiscal 2001. Computer expenditures in the current allowance and out-years will come out of agency's administrative budget.

Source: Department of Budget and Management

State Treasury -- Office of the State Treasurer

System Modernization: The system modernization effort would involve upgrading and improving the office's networks and data communications abilities, improvement of specialized software used by the office, replacement of computer servers and a high speed check printer, and conversion of all user systems within the office. The system modernization project is a five-year initiative intended to review, recommend, and implement modernization to the current IT systems and infrastructure. Phase one of the project conducted in fiscal 2000 was comprised of a study and presentation of a strategic plan by the Mitretek Corporation. The fiscal 2002 cost associated with this effort including salaries is \$1.9 million. Subsequent fiscal year budget requests (\$2.1 million) will address backlogs of maintenance work, system enhancements, and equipment upgrades.

There was a two-month delay due to unforeseen problems implementing the Transaction Reconciliation System. The loss of trained personnel has also adversely impacted the project schedule. The person assigned to assume management of the programming staff, to modernize the Insurance System, and to assume management of EDI implementation recently left the organization. **Exhibit 9** shows the system modernization budget.

Exhibit 9

System Modernization Budget

<u>Fund Type</u>	<u>Actual Reg Year FY00</u>	<u>Current Reg Year FY01</u>	<u>Budget Req Year FY02</u>	<u>Project Mid Rng FY03-05</u>
General			\$1,490,353	
Special			50,000	
Reimbursable			358,320	
Totals			\$1,898,673	\$2,050,533

Source: Department of Budget and Management

Department of Public Safety and Correctional Services

Stabilization Project Baseline: This project stabilizes the legacy systems and other support provided by the department's Information Technology & Communications Division (IT&CD). Areas addressed include application support, technical support, data center billing adjustment, and maintenance of applications. The project is on-time and on-budget. The fiscal 2002 budget includes \$7.1 million for this project as shown in **Exhibit 10**.

Exhibit 10

Stabilization Project Baseline Budget

<u>Fund Type</u>	<u>Actual Year FY00</u>	<u>Current Year FY01</u>	<u>Budget Year FY02</u>	<u>Project Mid FY03-05</u>	<u>Projected Long Range FY05+</u>
General		\$7,214,065	\$6,364,481	\$6,364,481	\$6,364,481
Special	\$1,399,000	761,587	761,587	761,587	761,587
Totals	\$1,399,000	\$7,975,652	\$7,126,068	\$7,126,068	\$7,126,068

Source: Department of Budget and Management

Architecture Re-engineering Project Baseline: This project permits the re-engineering of services and support provided by IT&CD as well as the proper management and maintenance of critical DPSCS networks. Areas include establishment and management of DPSCS networks, data security and disaster

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recovery, and upgrade of the Maryland Inter-Agency Law Enforcement System (MILES). MILES is a critical system that serves the entire State's law enforcement community by providing critical information on offenders and interfaces with the National Crime Information Center. This project is on-budget and on-time. The fiscal 2002 budget, as shown in **Exhibit 11**, includes \$3.9 million for this project.

Exhibit 11

Architecture Re-engineering Project Budget

<u>Fund Type</u>	<u>Actual Reg Year FY00</u>	<u>Current Reg Year FY01</u>	<u>Budget Req Year FY02</u>	<u>Project Mid Rng FY03-05</u>	<u>Projected Long Rng FY05+</u>
General	\$822,324	\$5,458,883	\$3,940,758	\$6,854,665	\$3,314,999

Source: Department of Budget and Management

Conclusion

State spending in fiscal 2001 totals nearly \$570 million on IT-related goods and services. In recent years, the State has also spent millions on the development of IT projects that have produced inadequate computer systems. Some of the reasons for project failures point to poor project management, lack of initial planning of projects, and insufficiently trained personnel to monitor and manage complex contracts. Maryland must take steps to safeguard its growing investment in this valued resource.

In conclusion, this issue highlights some common problems found throughout the State in the development and implementation of major information technology systems. This includes:

- poor planning;
- lack of expertise in State agencies in the design and development of systems;
- low pay and inadequate training; and
- a lack of effective centralized oversight.

It is recommended that the Department of Budget and Management address efforts that it plans to undertake to improve the design and development of major information technology systems throughout State agencies.

2. IT Development Costs Need To Be Identified Separately

State spending on the development of IT systems has grown considerably over the past several years. As shown in **Exhibit 12**, reported spending on development increased by over 100% between fiscal 1997 and 1999. This trend can be expected to continue into the foreseeable future. Under current practice, all IT costs are reflected in the operating budget. This includes both development and operating expenses. Development costs generally represent major one-time expenses, as systems are established and enhanced. The inclusion of this spending in the operating budget is problematic for two reasons. First, current and projected development costs in the working appropriation and allowance cannot be easily identified separately, in order to more accurately track spending in this area relative to ongoing State operations. It is recommended that DBM create programs within each affected agency, similar to the separate programs created for PAYGO capital spending, for the purpose of consolidating IT development expenditures. **Adoption of the following budget bill language is recommended:**

SECTION XX. AND BE IT FURTHER ENACTED, That beginning with fiscal 2003, the Department of Budget and Management (DBM) shall separately identify and fund major information technology projects in a manner which is similar to the capital budget. In order to implement this section, DBM shall:

- (1) develop a definition for “major” information technology projects;
- (2) create separate budget programs, similar to those established for PAYGO capital, for information technology development spending. Each program shall be based upon spending for individual major projects, to be presented to the General Assembly in a format similar to the *Capital Improvement Program (CIP)* or the *Consolidated Transportation Program (CTP)*. Within both of these documents, individual project sheets are provided for individual projects, and the aggregate costs of these projects equals the total proposed spending in the budget for each agency; and
- (3) create and submit on the third Wednesday of January 2002 a fifth volume to the *Maryland Operating Budget Fiscal Year 2003* which summarizes major information technology projects by agency, and includes separate detail for each project, similar to the CIP or CTP.

Further provided that the budget detail for fiscal 2001 and 2002 submitted with the fiscal 2003 budget shall be organized in the same fashion to allow comparison between years.

Exhibit 12

Statewide IT Spending
(\$ in Thousands)

	Actual 1997	%	Actual 1998	%	Actual 1999	%
New Development	\$25,605	11%	\$42,459	13%	\$66,693	10%
Ongoing	\$209,205	88%	\$289,058	87%	\$626,598	90%
	\$236,807	100%	\$333,515	100%	\$695,290	100%

Source: Office of Information Technology

3. Reporting of IT Spending Plans Needs Additional Work

The OIT is responsible for providing leadership and direction to State agencies in budgeting information technology services. To assist in that effort, the OIT has developed policies and standards to assist agencies in planning its information technology spending. Procedures for submitting Information Technology Master Plans (ITMP) and Information Technology Project Requests (ITPR) have been established by DBM to guide that process. The purpose of the ITMP is to document the respective agency's business and IT strategic plans, and link these to Maryland's statewide IT goals, objectives, and IT investment decisions. The ITPR is a component of the IT master plan and serves as a planning tool to justify the IT requirements of a specific agency. ITPRs must support the mission and goals of the agency. The ITPR identifies what State IT initiative the project supports, fund type, and project expenditures needed to implement the IT initiative. IT spending plans are reviewed by the OIT separately from the budget request to ensure they are consistent with State goals and objectives.

In recent years, the OIT has been directed by committee narrative to submit agency ITPRs in a timely manner to DLS for review. In fall 2000, the OIT began receiving agency ITMP and ITPR submissions electronically over the Internet. As you might expect with any new endeavor, there were some problems with agencies submitting them by established deadlines and the information being made available over the Internet. In the DLS review of the submissions, we found some of the same problems with IT reporting that was problematic when the data was received in hard copy. Some of the concerns with IT reporting by agencies and the OIT are listed below:

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Agency Reporting

- ITPRs are often written at a technical level which makes review of the projects and purposes difficult.
- Some agencies' submissions contained no master plans or were missing project requests.
- Some ITPRs contained no linkage to agency Managing for Results (MFR) goals and objectives.
- In some instances, there were vague descriptions of current project status.
- It is difficult to determine the connection between funding requested in agency ITPRs and actual funding in the budget.

OIT Electronic Reporting

- Data fields were not long enough to include all information reported by some fields.
- ITMPs and ITPRs submitted by some agencies were not available on-line. This presented serious problems for some DLS analysts. Negative reviews of some agency IT budgets occurred when information reported by the OIT (agency has no master plan) was incorrect. Only to find out later from the agency that data was submitted to the OIT but not reported.
- There was no baseline data IT spending for 19 of the 55 agencies (35%) including several large agencies such as the Comptroller of the Treasury, the Department of Business and Economic Development, and the Department of General Services. These omissions limit DLS in presenting summary information on statewide IT spending as was done in previous years (budget request in fiscal 1999 and 2000).
- Category headings were inaccurate on some reports in the database.

In all fairness, the OIT has given some attention to making sure agencies submitted required documents on time. In one memo (fall 2000), the Chief of Information Technology in very specific terms, directed all agencies to submit the ITMPs and ITPRs by the target date. DLS also recognizes that this is the first year of Internet submission, and many of these concerns will be addressed by the office during the interim. **DLS recommends that the OIT continue to impress upon agencies the importance of these documents and that not submitting them may jeopardize funding requests.**

One source of information in the ITPR that provides very valuable information is the estimated costs section. Here costs are categorized by IT activity. **Exhibit 13** below provides an example of the information collected in that section of the report. The checks indicate that resources are being requested in that category.

Exhibit 13

Estimated Costs Section in the ITPR Sample

	Actual Fiscal 2000	Current Fiscal 2001	Budget Request Fiscal 2002	Projected Mid Range Fiscal 2003-05	Projected Long Range Fiscal 2005
Development	✓	✓	✓		
Operations				✓	✓
Maintenance				✓	✓
Enhancements					✓
Retirement					

Source: Office of Information Technology

The information in Exhibit 13 can be interpreted as, the agency is developing the project through fiscal 2002. In the out-years, resources are used for operation, maintenance, and enhancements. In previous years, cells contained the monetary investments in the applicable categories. The OIT decided to require agencies to place only a check in the appropriate categories to indicate part of the funding is devoted to that particular activity. The reason given by the OIT personnel for this change was because agencies complained it was too burdensome. A check mark does not give sufficient information in tracking the status of projects. Agencies may have check marks in several categories for a given year because ongoing activities may require funds in more than one area. The checks do not give information on the amount of the investment in a given activity, which give clues about priorities.

Budget bill language is recommended to modify the ITPR submissions to provide more detailed budget information on IT budget requests and later revised to reflect the Governor’s allowance.

4. Audit Disclosed Significant Deficiencies in Procurement and Monitoring Activities

The most recent Office of Legislative Audits' report on the DBM - Office of the Secretary and Other Units was issued in June 2000. This report covered the following four units: Office of the Secretary (except for the Central Collection Unit, which was audited separately) and the Offices of Information Technology, Budget Analysis, and Capital Budgeting. The audit report contained 21 findings, including 11 repeat findings. The department generally agreed with the findings and recommendations. Although these findings addressed many areas of the department's operation, most of the major findings were related to IT issues.

Major Findings

IT Contract and Grant Monitoring

The audit report disclosed significant deficiencies in procurement and monitoring activities related to the department's IT contracts and grants.

- The department did not competitively bid a contract for the design and implementation of a statewide budget system, and the fiscal 1997 sole-source award of the \$6 million contract was made before defining certain major system requirements. Contract modifications had increased the system's cost to \$17.8 million as of the audit report date.
- Payments under the original BPAS contract were based on "time and materials" and not the receipt of predetermined acceptable deliverables.
- One of the initial BPAS contract modifications included a \$2 million risk factor for unanticipated problems, but this was not formally disclosed to the Board of Public Works.
- The department made excess payments of \$330,000 to one information technology contractor for FMIS consulting and support, because payments were based on rates in excess of those in the approved contract.
- Monitoring of the information technology contractor developing the FMIS employee time and leave reporting component (TESS) was inadequate, resulting in payments to the vendor for incomplete deliverables. Also all contract scope changes were not submitted to the Board of Public Works for approval.
- Grant funds totaling \$978,000 were disbursed to an information technology corporation over several years without adequate monitoring of the related services. For the same corporation, certain amounts (about \$44,000) exceeded restrictive budget language, and the department disbursed \$478,000 of the total without entering into written agreements.

Accounting for Telecommunication Costs

Significant problems in the area of the department's statewide telecommunication responsibilities were also noted. Several of these problems were included in prior audit reports.

- The department did not verify the receipt of \$8 million in credits due to the State from a telephone company, as the result of a contract option exercised in January 1993.
- Two special purpose telecommunication accounts were not reconciled with the Comptroller's records, and one of the accounts had a \$4.9 million deficit cash balance at June 30, 1999. These accounts were used to pay certain State government telecommunication costs and the Universal Service Trust Fund.

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- Since September 1991, telecommunication vendors' invoices had not been periodically audited to ensure propriety, and deficiencies were noted with the Division of Telecommunication's cash receipts and accounts receivable procedures and controls.

Statewide Oversight Responsibilities

- The department had not insured that adequate safeguards were in place to prevent unauthorized access to the State's computer resources from State agencies' connections to the Internet.

The department should brief the committees on the status of its actions to implement procedures to improve the procurement and monitoring of information technology contracts and grants, as well as its efforts to resolve long-standing issues within the Division of Telecommunications.

Recommended Actions

1. Add the following language:

SECTION XX. AND BE IT FURTHER ENACTED, That all executive branch agencies shall submit an Information Technology Project Request Master Document (ITPRMD) to the Department of Budget and Management by August 31, 2001, which shall provide, for each agency, the following information:

- (1) an agency-wide summary of the funding and personnel in the budget for information technology (IT) operations and development for each fiscal year for the period of fiscal 2002 through 2007 (forecast period), by object and fund source; and
- (2) detail on each information technology project or system requested for funding during the forecast period, which shall provide:
 - (a) justification for the IT system or project that explains the purpose of the project, how it meets the agencies' Managing for Results goals and user needs, whether the system or project will entail interaction with other State agencies or levels of government, how the project meets its users needs, and whether operating savings or productivity gains will be expected and measured;
 - (b) funding and personnel requested/estimated for the IT system or project for each year of the forecast period, by object and fund source;
 - (c) when any deliverables will be provided during each fiscal year;
 - (d) whether the agency has a qualified, certified project manager available for each project prior to any request for funds; and
 - (e) operating expense detail for each system or project that lists funding by object and source and personnel for each year of the forecast period.

The detail on all funds requested for all IT system and project development costs should reconcile with the detail, by object and fund source, with the separate programs in the budget for IT development, as required within this budget.

Further provided that it is the intent of the General Assembly that the Judiciary comply with the requirements of this section, with the stipulation that this document be submitted directly to the Department of Legislative Services by November 1, 2001, for review, with the Judiciary's budget request submission.

Further provided that the Department of Budget and Management shall revise each agency's ITPRMD to reflect modifications made between the agency request and the final allowance

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provided by the Governor. All ITPRMDs are to be submitted to the Department of Legislative Services by December 31, 2001.

Explanation: Given the importance and increasing magnitude of State spending for information technology-related development and operations, it is imperative that the General Assembly be provided more comprehensive documentation on agency IT spending plans for development and operations. This budget language provides specific direction for the executive and judicial branches with respect to the documentation that the legislature expects in order to provide the level of oversight necessary to ensure that State tax dollars are invested in a thoughtful, comprehensive manner. It is expected that the funding for development costs identified in this documentation will reconcile with the expenditures proposed by object and fund source in the budget allowance, within the separate programs for IT development as stipulated within this budget bill.

2. Add the following language:

SECTION XX. AND BE IT FURTHER ENACTED, That in recognition of spending affordability constraints, the General Assembly authorizes the Department of Budget and Management to use the fund balance of the Information Technology Investment Fund (ITIF) to fund a portion of the costs of the fiscal 2001 deficiency for information technology upgrades within the Department of Public Safety and Correctional Services, and to use up to \$900,000 in fiscal 2002 ITIF revenues for the purpose of an electronic document processing system and capital budget information system. Further provided that the following fiscal 2001 deficiency appropriation is reduced by the following amount to permit use of the ITIF fund balance:

<u>FA01.04</u>	<u>Division of Policy Analysis</u>	<u>\$500,000</u>
<u>FA06.01</u>	<u>Capital Budget Analysis and Formulation</u>	<u>\$400,000</u>
<u>QA01.02</u>	<u>Information Technology and Communications Division</u>	<u>\$7,000,000</u>

Explanation: The language permits use of the Information Technology Investment Fund for information technology-related projects in DBM and for part of the fiscal 2001 deficiency in the Department of Public Safety and Correctional Services. It also reduces the public safety deficiency by \$7.0 million, which would be funded by the ITIF.

3. Add the following language:

SECTION XX. AND BE IT FURTHER ENACTED, That beginning with fiscal 2003, the Department of Budget and Management (DBM) shall separately identify and fund major information technology projects in a manner which is similar to the capital budget. In order to implement this section, DBM shall:

- (1) develop a definition for “major” information technology projects;
- (2) create separate budget programs, similar to those established for PAYGO capital, for information technology development spending. Each program shall be based upon spending for individual major projects, to be presented to the General Assembly in a format

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similar to the Capital Improvement Program (CIP) or the Consolidated Transportation Program (CTP). Within both of these documents, individual project sheets are provided for individual projects, and the aggregate costs of these projects equals the total proposed spending in the budget for each agency; and

- (3) create and submit on the third Wednesday of January, 2002 a fifth volume to the Maryland Operating Budget Fiscal Year 2003 which summarizes major information technology projects by agency, and includes separate detail for each project, similar to the CIP or CTP.

Further provided that the budget detail for fiscal 2001 and 2002 submitted with the fiscal 2003 budget shall be organized in the same fashion to allow comparison between years.

Explanation: The budget language requires DBM to define major information technology project spending, and to create separate budget programs for IT development spending, similar to that in use for paygo capital spending. It further requires DBM to develop an additional volume of the budget books, similar to that used for the capital or transportation capital program. This new volume would summarize major IT project spending proposed in the budget, with agency and statewide summaries.

4. Add the following language to the special fund appropriation:

. provided that no funds shall be expended for the Information Technology Investment Fund until the Department of Budget and Management provides a summary showing the unencumbered balance in the fund as of the close of fiscal 2001 and a listing of any encumbrances; a listing of the projects including supporting detail for each project for which funds are requested in fiscal 2002; and a progress report on each project approved and funded in fiscal 2001. The committees have 60 days in which to review and comment on the proposed projects.

Explanation: The language requires legislative review of all projects in the Information Technology Investment Fund (ITIF). Further, progress reports for projects funded in fiscal 2001 must be submitted to Department of Legislative Services prior to the release of fiscal 2002 funding.

Information Request	Authors	Due Date
List of projects for fiscal 2002, project status for fiscal 2001, and ITIF revenue status	DBM	60 days before expending fiscal 2002 IT funds.

5. Add the following language:

. provided that \$5,000,000 of this appropriation is restricted until the Department of Budget and Management submits a detailed action plan outlining the steps it proposes to take to reform the IT development process statewide. The plan should include but not be limited to the following

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issues:

- (a) identification of the tasks for which the Program Management Office is responsible;
- (b) inclusion of policies, procedures and standards to insure uniform guidelines;
- (c) its plans to establish strong central authority for project oversight, standards implementation, and network infrastructure; and
- (d) additional steps to be taken to raise the grade of the Government Performance Project from a B to an A.

Further provided that the budget committees shall have 45 days to review and comment on the IT Project Reform Plan.

Information Request	Authors	Due Date		
IT Project Reform Plan	DBM	45 days prior to the expenditure of funds		
		<u>Amount Reduction</u>		<u>Position Reduction</u>
6. Reduce by one-half funding requested to implement the "50-65-80" initiative. According to the law creating this initiative the mandate applies to "public information and services." Many of the computer applications which provide information and services offered by the agency are out of the public domain.		\$ 2,614,000	GF	
7. Reduce funding for abolished positions. The agency reorganized to better align functions and maximize use of available resources. In doing so they abolished seven regular positions. The fiscal 2002 allowance included funding for five of those positions. This action reduces the funding for those positions.		438,743	GF	
8. Delete Administrator V position. This position has been vacant over 30 months.		57,647	GF	1.0
9. Delete 25% of the operating costs for net.work.Maryland. The agency projects an October 2001 start-up date for the network; therefore, operating costs should not be necessary before then.		503,750	SF	
10. Reduce the reimbursable fund budget of the Comptroller of the Treasury (COT) by \$141,297.		141,297	GF	

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Accordingly, the Department of Budget and Management is directed to distribute the reduction among user agencies of COT services as provided in Section 11 of the fiscal 2002 budget bill.

11. Adopt the following narrative:

Definition of Web-enabled Services: Chapter 5, Acts of 2000 required all units of the executive branch (except for higher education institutions) to have 50% of its public information and services available over the Internet by 2002. This increases in subsequent years to 65% and 80%. The Department of Budget and Management (DBM) is currently collecting baseline information from the agencies, which it expects to have completed by April 2001. The budget committees are concerned over the lack of standards that clearly define what it means to be “50-65-80 web-enabled. DBM should submit a report to the budget committees by August 1, 2001, which summarizes the baseline inventory of Internet-based services by agency, along with a plan that outlines what services by agency that will be web-enabled at the 50%, 65%, and 80% levels.

Information Request	Authors	Due Date	
Inventory of web-enabled services and plan to reach 50%, 65%, and 80% levels	DBM	August 1, 2001	
Total Reductions		\$ 3,755,437	1.0
Total General Fund Reductions		\$ 3,251,687	
Total Special Fund Reductions		\$ 503,750	

Updates

1. The OIT Improves Its Grade for Information Technology from C to B:

Governing magazine recently reported its second assessment of state government performance across five areas: financial management, capital management, human resources, managing-for-results efforts, and information technology. This update reports the magazine's finding on information technology. The project -- a collaboration between *Governing* and the Maxwell School of Syracuse University, funded by the Pew Charitable Trust -- will be repeated at regular intervals in the future. Currently, plans are to extend the time horizon between efforts to evaluate any given set of entities, whether cities, states, or counties. The 1999 and the 2001 reports were conducted during a time when the economy was doing rather well. It should be interesting to compare results during less prosperous economic times. **Exhibit 14** compares Maryland's 1999 and 2001 report cards to seven other states in the region. The scores show that North Carolina and Maryland had the most improvement over the two-year period.

Exhibit 14

Governing Magazine Information Technology Report Card

<u>State</u>	<u>Information Technology</u> <u>1999</u>	<u>Information Technology</u> <u>2001</u>
Maryland	C	B
Connecticut	D+	C+
Delaware	B	B
New Jersey	B-	B
North Carolina	C	B+
Pennsylvania	B	B+
Virginia	A-	A-
West Virginia	C	C-

Source: *Governing* Magazine

The "B" grade earned by Maryland is due in part to the streamlined approach taken towards procurement by using large, multiple-award contracts. The report also notes the new standards and procedures that may require agencies to upgrade its IT infrastructure (PCs, desktops, software, etc.). The highest praise, according to the report, is reserved for the State's move toward a fully converted multi-media network.

2. Two Bills Introduced in the 2001 Session Impact Information Technology

Two legislative bills (if enacted) will have an impact on information technology. The bills focus on equal access by businesses to State telecommunication infrastructure and improving the procurement process. A brief description of the bills follows:

- House Bill 1228 -- This bill directs DBM to construct network facilities in under-served areas of the State and requires the Governor to provide specified funding in the State budget for fiscal 2003 through 2006.
- House Bill 903 -- This bill increases the responsibility of the Secretary of DBM by granting authority to streamline the procurement process for information technology services. That procurement process should include procedures for project/contract management and a performance evaluation component.

Current and Prior Year Budgets

**Current and Prior Year Budgets
Information Technology
(\$ in Thousands)**

	<u>General Fund</u>	<u>Special Fund</u>	<u>Federal Fund</u>	<u>Reimb. Fund</u>	<u>Total</u>
Fiscal 2000					
Legislative Appropriation	\$47,505	\$11,398	\$0	\$17,862	\$76,765
Deficiency Appropriation	9,600	0	0	0	9,600
Budget Amendments	(13)	12,000	0	0	11,987
Reversions and Cancellations	0	(2,635)	0	(5,336)	(7,971)
Actual Expenditures	\$57,093	\$20,763	\$0	\$12,526	\$90,382
Fiscal 2001					
Legislative Appropriation	\$49,175	\$12,162	\$0	\$19,034	\$80,371
Budget Amendments	(19)	1,000	0	0	981
Working Appropriation	\$49,156	\$13,162	\$0	\$19,034	\$81,351

Note: Numbers may not sum to total due to rounding.

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Fiscal 2000

Deficiency

A deficiency was authorized to supplement the fiscal 2000 appropriation to provide funds for statewide "Year 2000" computer modifications.

Budget Amendments

The OIT had three budget amendments totaling \$12 million. Two budget amendments totaling \$7 million were to realign appropriations from the Dedicated Purpose Fund in support of the High Speed Data Network project (\$5 million) and the Public Safety Communication Wireless Infrastructure (\$2 million). The third budget amendment was for \$5 million from the ITIF in support of the BPAS project in accordance with the budget language within Chapter 204, Acts of 2000 (Fiscal 2001 Budget Bill).

Cancellations

Special Funds

The \$2.6 million cancellation in special funds consists of the following actions: \$1.5 million is the balance of the special fund appropriation for the ITIF, only \$1.5 million of the original appropriation (\$3 million) was used to support agency IT projects; the Application Systems Management Division reverted \$140,750 of the original \$5 million ITIF appropriation for BPAS; and less than projected costs for the Telecommunication Access of Maryland Program resulted in a \$1.029 million reversion.

Reimbursable Funds

The \$5.3 million cancellation in reimbursable funds consists of the following actions: less than anticipated reimbursement from State agencies for the OIT Users Conference and FMIS statewide training resulted in a \$78,200 reversion; lower than expected quantities in usage sensitive services (i.e., long distance calls, circuits/equipment purchased and installed), and staff turnover/vacancies resulted in a \$5.3 million cancellation from the Telecommunications Division.

Fiscal 2001

Budget Amendments

A budget amendment was processed to obtain the remaining \$1 million in a fiscal 2000 appropriation from the Dedicated Purpose Fund in support of the High Speed Data Network project. The funds are to support the implementation of pilot projects, Supply Chain Management, and the Public Awareness Project (Bioterrorism).

**Object/Fund Difference Report
DBM - Information Technology**

Positions	Object/Fund	FY01		FY02 Allowance	FY01 - FY02 Amount Change	Percent Change
		FY00 Actual	Working Appropriation			
01	Regular	145.00	160.00	153.00	(7.00)	(4.4%)
02	Contractual	25.00	16.60	13.00	(3.60)	(21.7%)
	Total Positions	170.00	176.60	166.00	(10.60)	(6.0%)
	Objects					
01	Salaries and Wages	\$ 7,644,503	\$ 9,431,160	\$ 9,716,091	\$ 284,931	3.0%
02	Technical & Spec Fees	503,698	502,214	399,069	(103,145)	(20.5%)
03	Communication	8,776,593	14,743,072	14,162,646	(580,426)	(3.9%)
04	Travel	274,696	433,129	363,500	(69,629)	(16.1%)
07	Motor Vehicles	1,384	0	0	0	0.0%
08	Contractual Services	70,978,922	55,377,035	51,497,983	(3,879,052)	(7.0%)
09	Supplies & Materials	224,617	340,000	188,200	(151,800)	(44.6%)
10	Equip - Replacement	1,219,243	349,255	886,350	537,095	153.8%
12	Grants,Subsidies,Contr	653,000	0	0	0	0.0%
13	Fixed Charges	104,858	175,201	188,083	12,882	7.4%
	Total Objects	\$ 90,381,514	\$ 81,351,066	\$ 77,401,922	(\$ 3,949,144)	(4.9%)
	Funds					
01	General Fund	\$ 57,092,817	\$ 49,155,721	\$ 46,948,142	(\$ 2,207,579)	(4.5%)
03	Special Fund	20,763,124	13,161,650	11,702,486	(1,459,164)	(11.1%)
09	Reimbursable Fund	12,525,573	19,033,695	18,751,294	(282,401)	(1.5%)
	Total Funds	\$ 90,381,514	\$ 81,351,066	\$ 77,401,922	(\$ 3,949,144)	(4.9%)

Note: Full-time and contractual positions and salaries are reflected for operating budget programs only.

Fiscal Summary
DBM - Information Technology

<u>Unit/Program</u>	FY00	FY01	FY01	FY00 - FY01	FY02	FY01 - FY02
	<u>Actual</u>	<u>Legislative Appropriation</u>	<u>Working Appropriation</u>	<u>% Change</u>	<u>Allowance</u>	<u>% Change</u>
01 Executive Direction	\$ 41,440,518	\$ 9,497,420	\$ 10,501,190	(74.7%)	\$ 16,075,193	53.1%
03 Division of Application Systems Management	28,048,563	42,008,389	41,969,725	49.6%	33,053,560	(21.2%)
04 Division of Telecommunications	20,892,433	28,864,240	28,880,151	38.2%	28,273,169	(2.1%)
Total Expenditures	\$ 90,381,514	\$ 80,370,049	\$ 81,351,066	(10.0%)	\$ 77,401,922	(4.9%)
General Fund	\$ 57,092,817	\$ 49,174,704	\$ 49,155,721	(13.9%)	\$ 46,948,142	(4.5%)
Special Fund	20,763,124	12,161,650	13,161,650	(36.6%)	11,702,486	(11.1%)
Total Appropriations	\$ 77,855,941	\$ 61,336,354	\$ 62,317,371	(20.0%)	\$ 58,650,628	(5.9%)
Reimbursable Fund	\$ 12,525,573	\$ 19,033,695	\$ 19,033,695	52.0%	\$ 18,751,294	(1.5%)
Total Funds	\$ 90,381,514	\$ 80,370,049	\$ 81,351,066	(10.0%)	\$ 77,401,922	(4.9%)

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A Comparative Analysis of State Information Technology Spending

Department of Legislative Services

Office of Policy Analysis

Annapolis, Maryland

February 2001

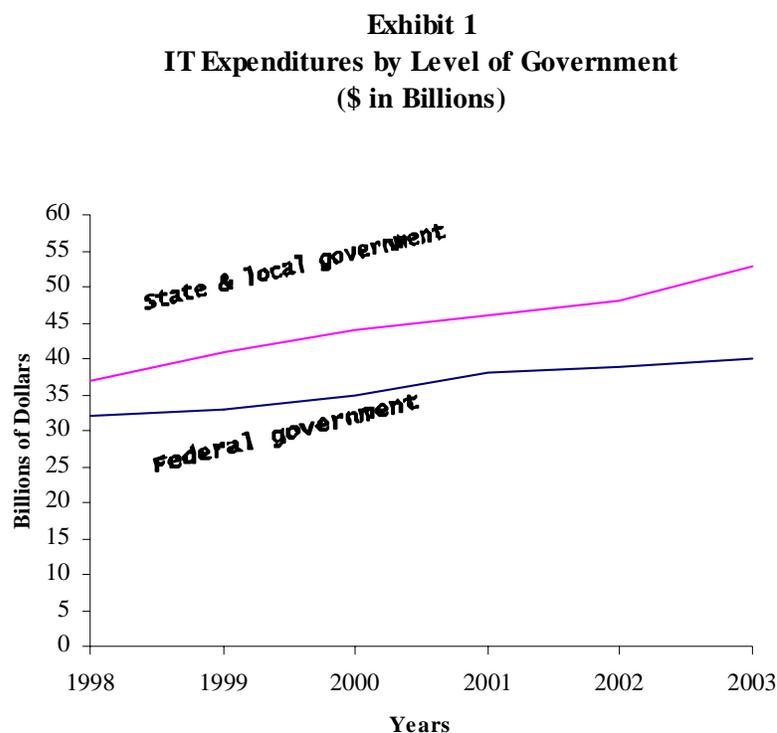
Introduction

In recent years, public sector managers have become increasingly reliant on information technology (IT) to do their jobs well. The challenge has been to convince public lawmakers to authorize expenditures on the information technology resources needed to become more efficient and expand citizen access.

This paper reviews state and local IT spending and its impact on state budgets. The first section of the paper provides a discussion of aggregate state and local spending on IT. Section II highlights similarities and differences between Maryland and Virginia's IT spending. Finally, the appendix includes state profiles of IT spending for selected states. This paper will be useful in understanding IT spending at the state and local level. Also, it will inform the reader on the distribution of IT spending by category (hardware, software, personnel, etc.)

State and Local Information Technology Budgets

Information technology spending grew an average of 18.9% between 1998 and 2000 and is expected to grow by 20.5% by 2003. **Exhibit 1** shows that the level of growth in IT spending at the federal level is less dramatic. Federal IT spending grew by 7.5% between 1998 and 2000 and is expected to grow by 14.5% by 2003.

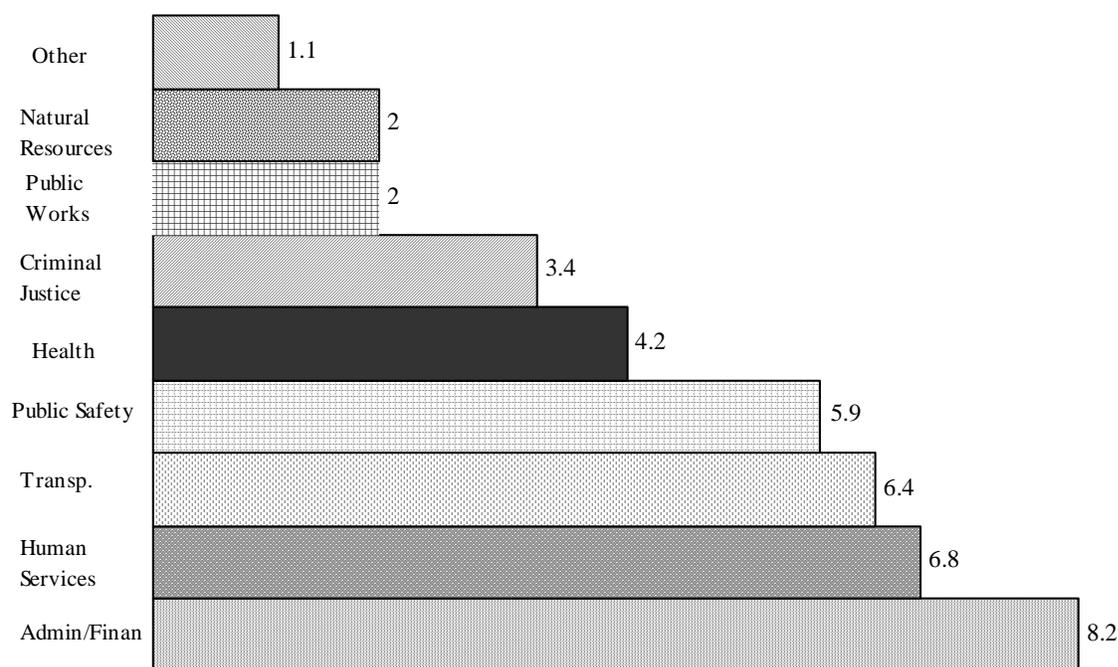


Source: Dataquest/Gartner Group

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In calendar 1999, state and local governments invested \$41 billion on IT resources nationwide. **Exhibit 2** shows aggregate state and local government IT spending distributed by agency in 1999. The administrative and finance function accounted for the largest level of IT spending at \$8.2 billion, followed by spending in the human services and transportation areas, at \$6.8 billion and \$6.4 billion, respectively.

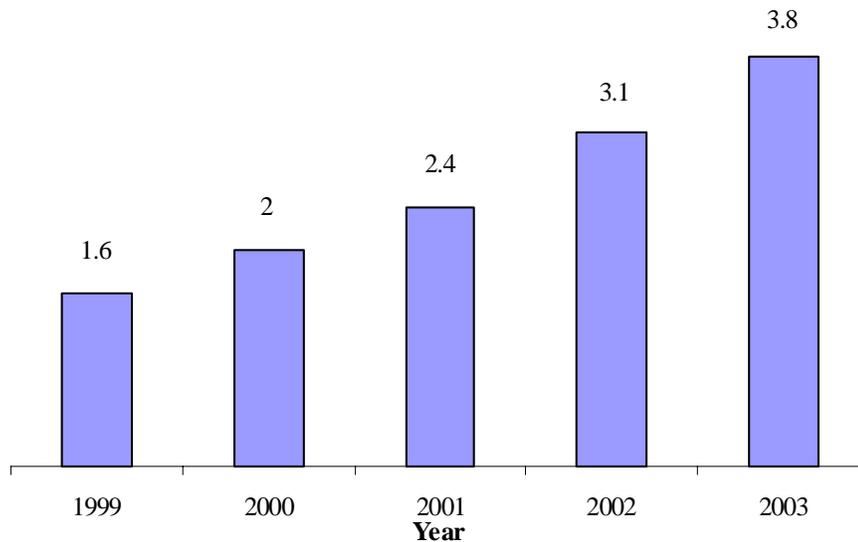
Exhibit 2
State and Local IT Spending by Agency, 1999
(\$ in Billions)



Source: Dataquest/Gartner Group

Government outsourcing involves using private sector corporations to perform tasks that otherwise would be done by employees working directly for a government. For example, if a state agency decided that it did not want to be responsible for servicing its own desktop computers, it might outsource that operation to a company that specialized in this work. In recent years the level of spending on state and local outsourcing of IT has steadily grown. State and local governments spent \$1.6 billion on IT outsourcing in 1999. It is projected that sub-national governments will spend \$3.8 billion by 2003, a 138% increase over 1999 spending. **Exhibit 3** shows projected state and local government spending on IT outsourcing between 1999 and 2003.

Exhibit 3
Total IT Outsourcing by State and Local Governments
(\$ in Billions)



Source: Dataquest/Gartner Group

Information Technology Budgets

The information technology budget is generally comprised of spending on information resource-related personnel, training, hardware, software, telecommunications, maintenance, contracted/consulting services, and other information technology-related expenses. The National Association of State Information Resource Executives (NASIRE), an organization representing chief information officers of the states, recently completed a survey examining information technology budgets among states. While the study was limited in that only 27 states responded, it represents the most comprehensive view of IT spending to date. NASIRE collected data over a three-fiscal-year period (1998-2000) that sheds light on how states are budgeting and expending funds on information technology. The study also provides insight into the areas where states are spending and investing the most dollars on information technology.

Exhibit 4 shows IT expenditures as a percent of the reported total state budgets in fiscal 1998-2000. For the states represented in this study, the proportion of IT expenditures to all expenditures ranges from less than 1% to over 3%. For example, in Maryland over the three-year period, IT expenditures increased

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from 2% to just under 3% of the total budget.

Exhibit 4
IT Expenditures as a Percent of the
Reported Total State Budget
Fiscal 1998-2000

<u>State</u>	<u>Fiscal 1998</u>	<u>Fiscal 1999</u>	<u>Fiscal 2000</u>
Arizona	2.00	1.54	n/a
Colorado	2.66	2.24	2.52
Kansas	1.65	n/a	n/a
Kentucky	1.19	1.13	1.24
Louisiana	1.28	1.61	1.57
Maine	1.04	0.98	n/a
Maryland	2.14	2.74	2.88
Michigan	1.24	1.20	1.24
Mississippi	0.75	0.70	n/a
Nebraska	1.55	1.72	1.66
New Jersey	1.56	1.96	1.93
North Carolina	n/a	0.66	n/a
North Dakota	3.62	3.30	3.40
Ohio	1.12	n/a	n/a
Pennsylvania	1.67	n/a	n/a
Rhode Island	0.80	0.79	0.69
South Dakota	n/a	2.76	3.26
Texas	2.75	3.06	2.89
Utah	1.93	1.87	1.52
Virginia	2.06	2.20	2.44
Washington	n/a	3.18	n/a
West Virginia	1.71	n/a	n/a
Wyoming	1.06	1.61	n/a

Source: NASIRE, February 2000

Information Technology Contracts

Each year states enter into information technology contracts that amount to millions and in some cases, hundreds of millions of dollars. In fiscal 1999, ten states had IT contract expenditures of \$100

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million or more. It should come as no surprise that California, the top-spending state, is ranked number one in IT spending. What is surprising however, is that while Maryland was ranked eighteenth in total expenditures in 1999, it ranked number four in the value of technology contracts¹. What is not apparent from the data is whether the level of IT spending translates into greater value to the states in terms of increased efficiency in the delivery of services and greater citizen access. **Exhibit 5** shows the value of state technology contracts, by state.

Exhibit 5 State Technology Contracts, 1999

<u>Number of States</u>	<u>Value Range</u>	<u>States</u>
10	Contract Values \$100 Million or More	CA, FL, IL, KY, MD MI, NY, PA, TN, TX
7	Contract Values \$30-99 Million	CO, DE, IN, NC, SC, VA, WA
8	Contract Values \$10-29 Million	AZ, LA, MA, MO, NV NM, OK, OR
25	Contract Values Less Than \$10 Million	AL, AK, AR, CT, GA HA, ID, IA, KS, MA MN, MI, MO, NE, NH NJ, ND, OH, RI, SD UT, VT, WV, WI, WY

Source: Federal Sources, Inc.

Comparison of IT Spending in Maryland and Virginia

The availability of data in Maryland and Virginia permits greater detail and analysis than that in other states. The level of IT spending, IT expenditures by category, and IT spending in the top ten agencies for fiscal 1998 to 2000 is shown in Exhibits 6 through 9 for Maryland and Virginia.

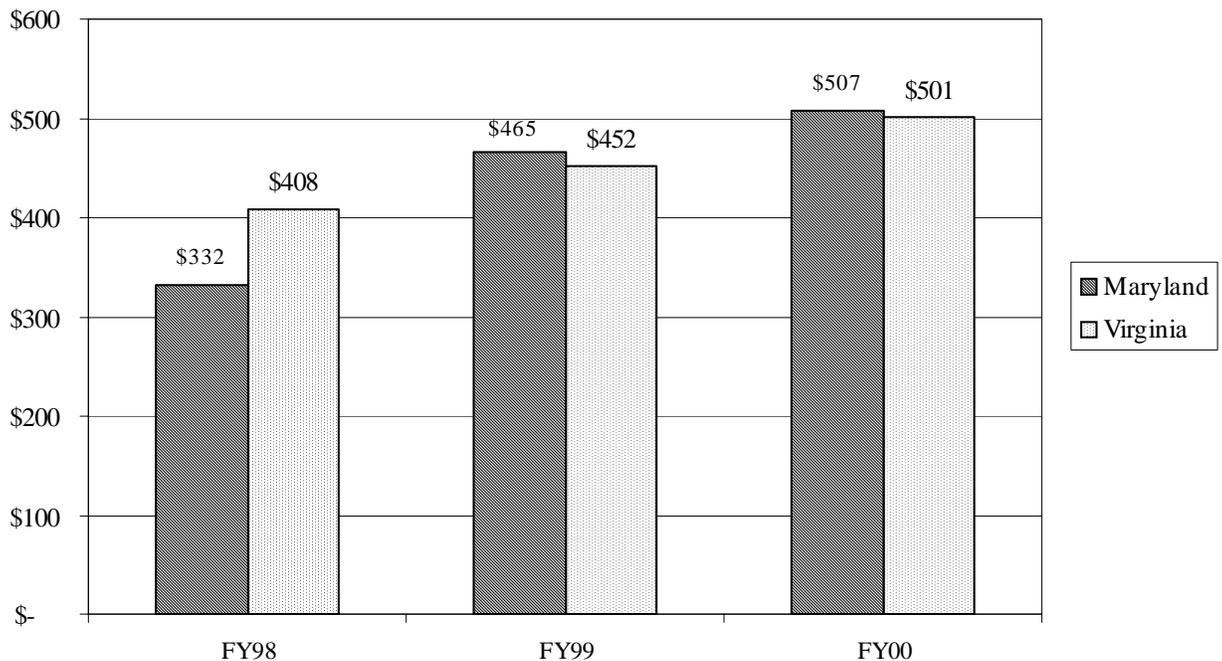
As shown in **Exhibit 6**, Maryland IT spending grew from \$332 million to \$507 million, an increase of nearly 53% over the three-year period. Most of the growth can be attributed to the costs associated with the Year 2000 computer problem. Over that three-fiscal-year period, Maryland appropriated \$107 million. Over the same period, the table shows Virginia IT spending grew 23%. In fiscal 2000, Virginia spent \$501 million on IT-related activities compared to \$506 million spent in Maryland. As indicated

¹Source: U.S. Census Bureau, 1999, State Government Finances

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earlier in Exhibit 4, Maryland devoted a larger share of its total spending to IT (2.9%) in fiscal 2000 than Virginia (2.4%).

Exhibit 6
Comparison of IT Spending in
Maryland and Virginia
For Selected Years
(\$ in Millions)



Source: Federal Sources, Inc.

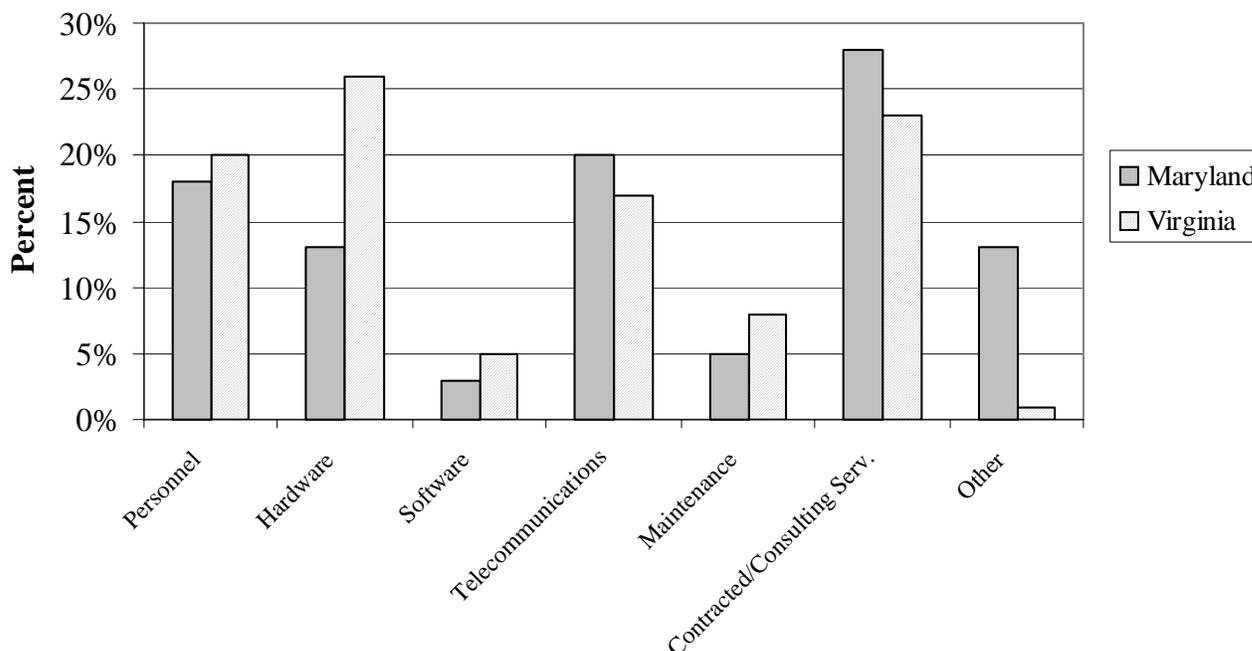
Exhibit 7 presents the distribution of IT spending by major category in fiscal 2000. When examining the distribution of IT expenditures for Maryland and Virginia, you find similar priorities. In Virginia, IT spending was highest in computer hardware, outsourcing (contractual services), and personnel in fiscal 2000. In Maryland, IT spending was greatest in outsourcing, telecommunications, and personnel. The smallest priority in terms of IT spending in both Virginia and Maryland was in training, software, and maintenance. Over the three-year period, spending on hardware outdistanced spending in other categories in Virginia.

The data suggest that there is a tradeoff in the level of spending on personnel compared to outsourcing in Maryland. The growth in spending on personnel is somewhat flat, hovering around \$80 million, while

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spending on contractual services grew by nearly \$20 million, to \$140 million between fiscal 1998-00. For

Exhibit 7
Percent IT Spending by Source
Maryland & Virginia, Fiscal 2000



Virginia over the three-year period, growth in personnel spending rose from just under \$80 million to about \$100 million. While spending on contractual services in Virginia grew more dramatically than

Source: Federal Sources, Inc.

in Maryland, the level of spending was much lower. Another interesting observation in the data shows that IT spending on telecommunications grew more dramatically in Maryland than in Virginia and was also at a higher level in Maryland. Finally, Maryland and Virginia reported no spending on training, which may help to explain why both states continue to have difficulty recruiting and retaining IT personnel.

Exhibit 8 shows technology spending among the top ten agencies between fiscal 1998 and 2000 in Maryland. Spending grew significantly over the three-year period in the Departments of Human Resources, Budget and Management, Labor, Licensing, and Regulation, the Comptroller of the Treasury, and the University System of Maryland. For example, the Department of Human Resources IT spending grew 127% over that period. Spending growth declined significantly in the Transportation and Lottery

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agencies. There was little or no growth among the Departments of Public Safety and Correctional Services or Health and Mental Hygiene.

Exhibit 8
Maryland IT Expenditures in the Top Ten Agencies
For Selected Years
(\$ in Thousands)

<u>Agency Name</u>	<u>FY 1998</u> <u>(Actual)</u>	<u>FY 1999</u> <u>(Appropriated)</u>	<u>FY 2000</u> <u>(Appropriated)</u>
1 Human Resources	\$37,444	\$78,677	\$85,084
2 Budget and Management	33,000	93,810	86,524
3 Transportation	80,367	65,253	67,232
4 Comptroller of the Treasury	16,845	36,418	36,588
5 Public Safety and Corrections	26,089	26,993	28,660
6 Health & Mental Hygiene	29,016	26,740	30,529
7 University Systems of Maryland	41,583	47,470	59,938
8 Labor, Licensing, and Regulation	7,256	19,710	18,887
9 State Police	10,863	9,365	10,965
10 Lottery	17,380	6,619	6,702
All Other Agencies	31,674	53,451	75,852
State Total	\$331,517	\$464,506	\$506,961

Note: Reprinted by permission

Source: Federal Sources, Inc

For the fiscal period 1998-2000, **Exhibit 9** shows Virginia technology spending among the top ten agencies. In Virginia, the top three users of IT resources Transportation, Social Services, and the Data Center and IT Services, which account for 43% of IT spending in fiscal 2000. The bottom three users, Corporation Commission, State Police, and the Employment Commission represent only 9% of total spending over the same period.

Exhibit 9
Virginia IT Expenditures in the Top Ten Agencies
For Selected Years
(\$ in Thousands)

<u>Agency Name</u>	<u>FY 1998</u> <u>(Actual)</u>	<u>FY 1999</u> <u>(Appropriated)</u>	<u>FY 2000</u> <u>(Appropriated)</u>
1 Transportation	\$71,048	\$78,737	\$87,259
2 Social Services	62,483	69,246	76,740
3 Data Center and IT Services	40,734	45,143	50,028
4 Lottery	27,127	30,063	33,316
5 Motor Vehicles	25,188	27,914	30,935
6 Health	20,301	22,499	24,933
7 Medicaid/Medicare	15,359	17,022	18,864
8 Corporation Commission	14,165	15,698	17,397
9 State Police	11,756	13,029	14,439
10 Employment Commission	11,430	12,668	14,039
All Other Agencies	108,488	120,229	133,242
State Total	\$408,079	\$452,248	\$501,192

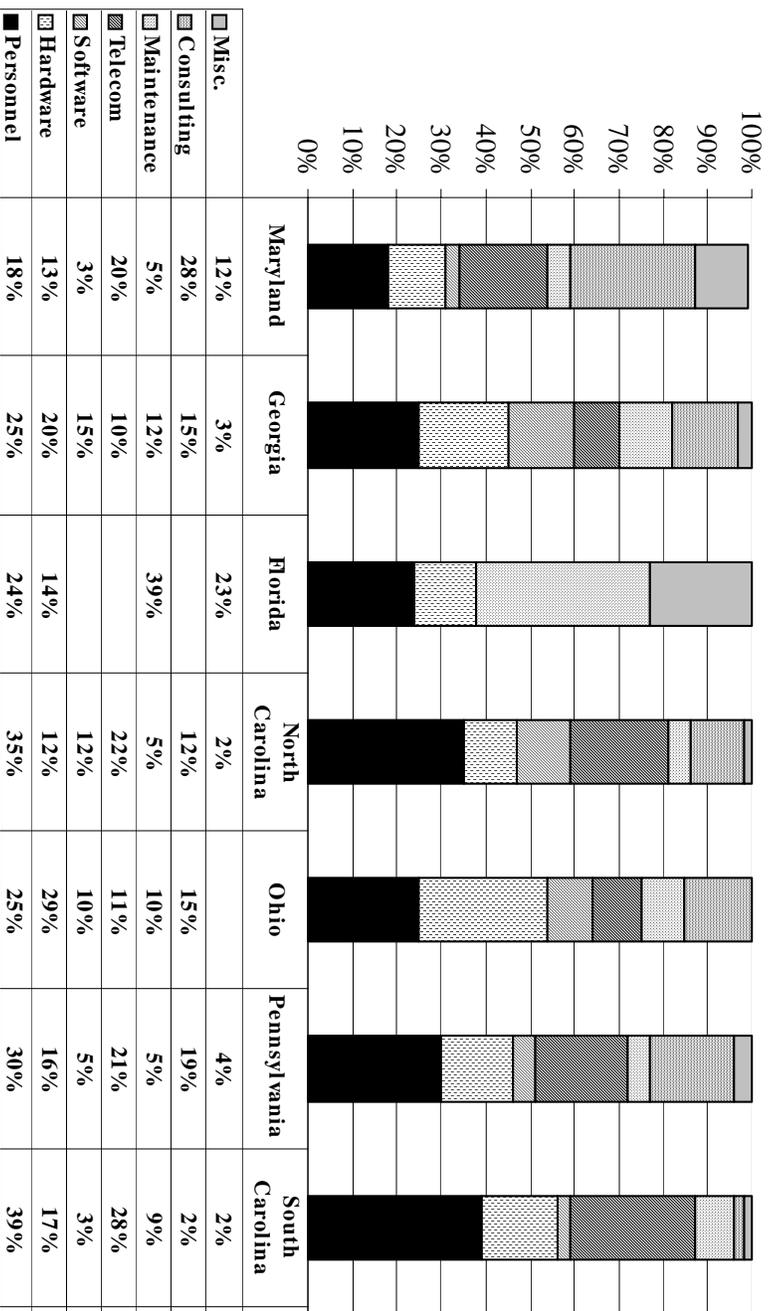
Note: Reprinted by permission

Source: Federal Sources, Inc

Comparing Maryland with Other States

Exhibit 10 compares the proportion of IT spending in fiscal 2000 on various activities in Maryland with other states. The states included are Georgia, Florida, New Jersey, North Carolina, Ohio, Pennsylvania, and South Carolina. The states were selected based on proximity to Maryland and available data in fiscal 2000.

Exhibit 10
IT Expenditures by State and Category
Fiscal 2000



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Maryland devoted more of its IT resources (28%) to consulting services than any other state in the sample. Five states in the sample devoted less than 20% of IT spending on consulting services. Those same five states (Georgia, North and South Carolina, Ohio and Pennsylvania) spent more on IT personnel costs. With the exception of Florida, spending on maintenance of existing IT systems ranges from 5% (Maryland) to 12% (Georgia). Maryland's share of expenditures for hardware and software (16%) was less than all of the other states in the sample.

The data for Florida is truncated into only four areas that included: maintenance (39%); personnel (24%); miscellaneous (23%), and hardware (14%). Maryland's share of spending on telecommunications (20%) was in the middle of the range (10 to 28%) compared to other states.

Conclusions

Trends in the data show that IT spending among state and local governments will continue to grow. IT expenditures as a percent of total State budgets range between less than 1% to slightly over 3%. Another finding in the analysis is that among sample states, reliance on consulting services in terms of dollars invested, is more important in Maryland and Virginia. This is consistent with the data in Exhibit 3 that shows outsourcing among state and local governments will continue to grow.

What is not reported in the data are dollars spent on IT training. A complaint among many Maryland agencies is that the value of IT training dollars spent is lost in the long run due to more competitive wages in the marketplace for those newly acquired skills. There is a reluctance to devote too many resources, so instead, these skills are purchased outside of the agency at greater costs. It is conceivable many of those dollars spent on IT training are captured in the miscellaneous category of Exhibit 10.