
Cost Analysis of Maryland's Electronic Voting System

Prepared February 2008 by

SAVEOurVotes
SECURE • ACCESSIBLE • VERIFIABLE ELECTIONS FOR MARYLAND

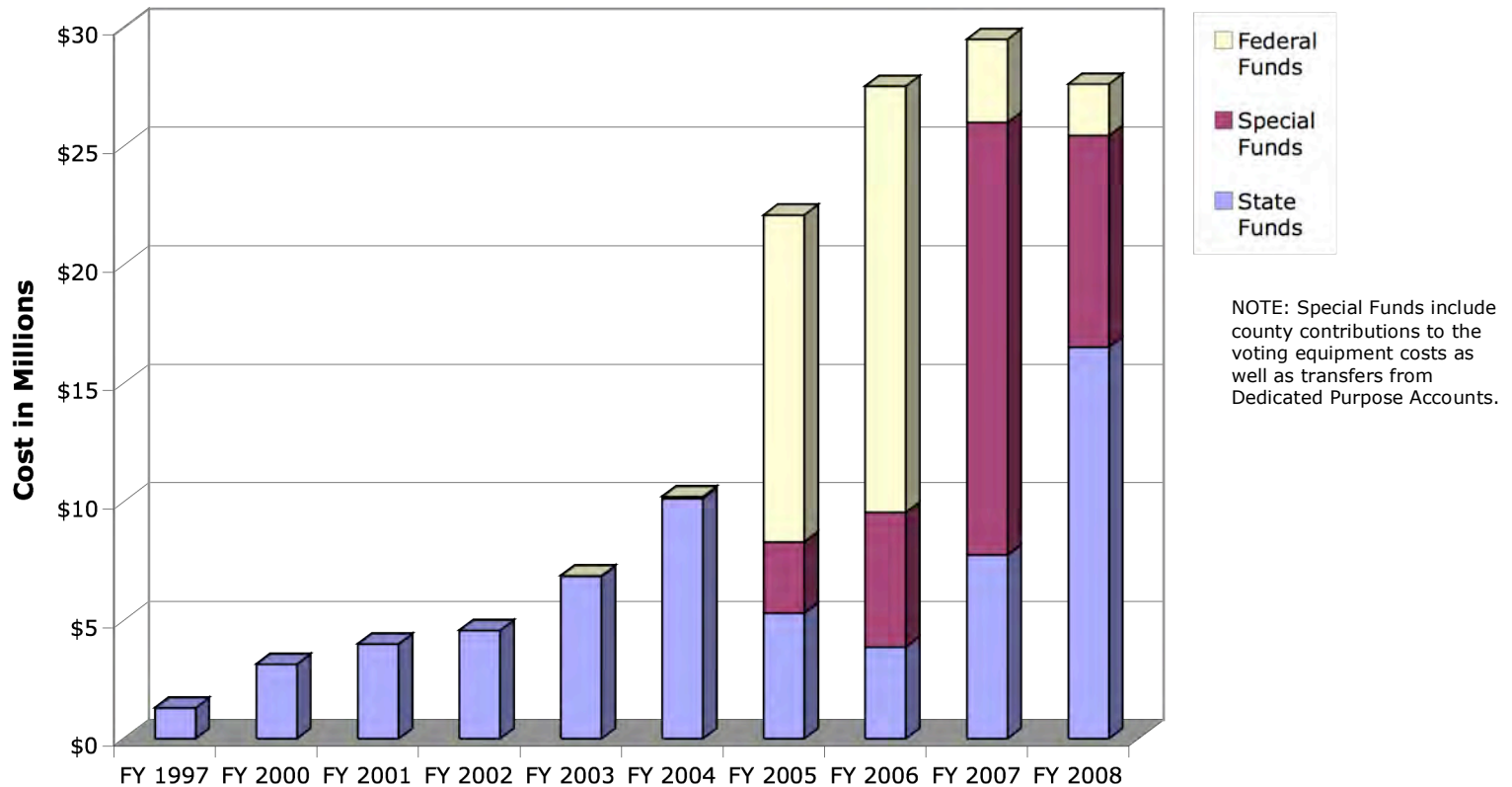
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E-voting sticker shock

Since converting to a statewide electronic touch-screen voting system, Maryland's election costs have soared. We now spend **nearly 10 times as much** to conduct our elections as we did just 7 years ago.

State Board of Elections Annual Budget, by Funding Source

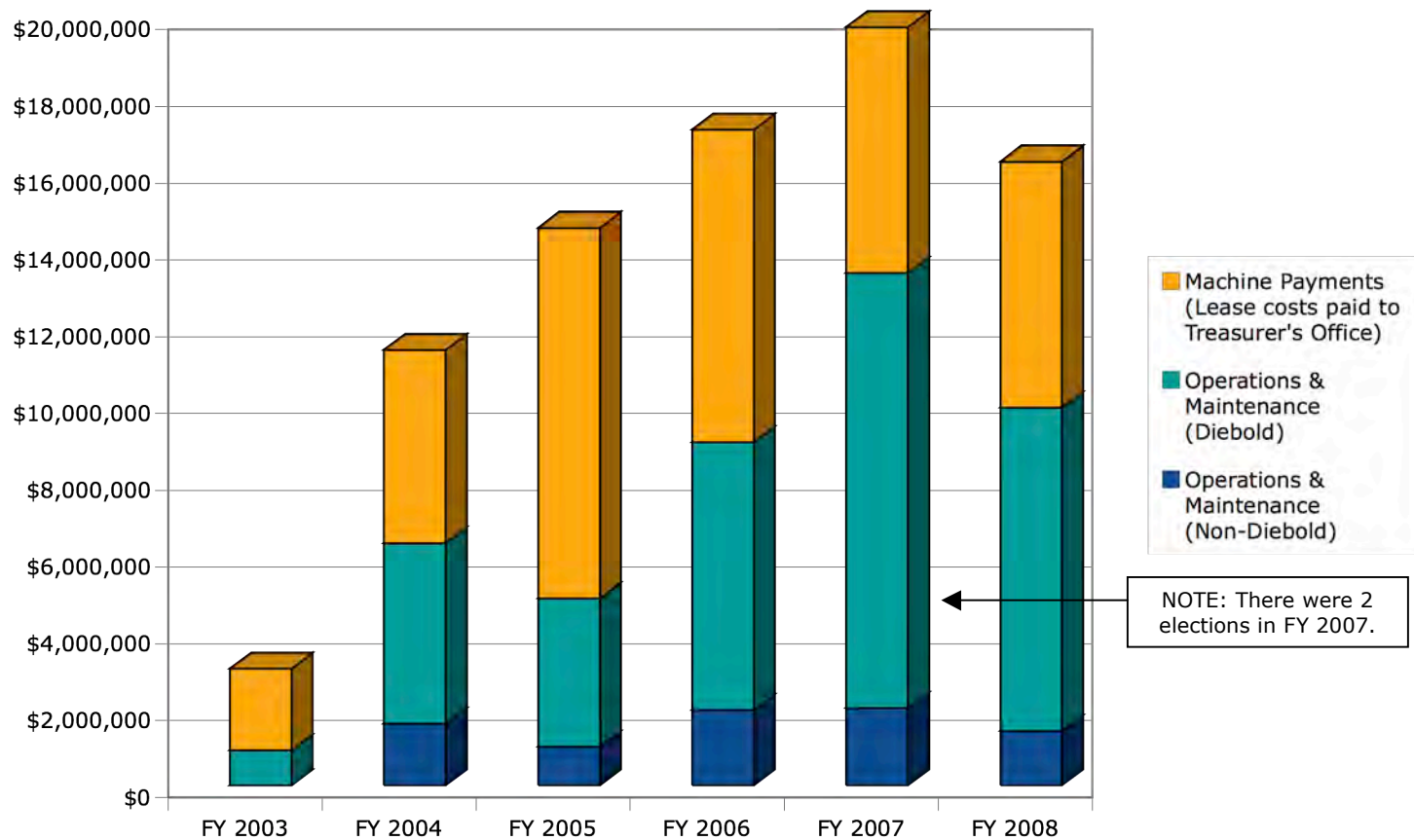


Source: Analysis of the Maryland Executive Budget, Fiscal Years 2002 – 2008, Department of Legislative Services

For chart data, please see Appendix Table 1, page 12

Soaring Operating and Maintenance Costs

The operating and maintenance costs of our touch-screen voting system are substantial, averaging **\$10.7 million per year** for fiscal years 2006 – 2008. These costs include maintaining, repairing, storing, transporting, programming, and testing approximately 19,000 machines, as well as providing training and technical support for election workers on a system that requires increasingly complex and time consuming security procedures to compensate for its numerous inherent vulnerabilities.



The Cost of Keeping Our Touch-screen Machines

By the time the 2008 elections are complete, we will have spent over \$97.5 million to purchase and operate our equipment—and that does not include the \$23.3 million we still owe in capital lease costs. We can't project our operating costs into the future because our maintenance contract on the touch-screen machines expires soon after the 2008 General Election. If we retain the equipment, the contract would have to be rebid at that time. The maintenance contract would likely be more expensive as the equipment ages and needs more frequent repairs or replacement. But even if the costs remain the same as our current average, **we would spend another \$78.5 million in Fiscal Years 2010 – 2014.**

Statewide Voting System Costs, by Expenditure Category

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	TOTAL	FY 2010 – 2014
Machine Payments (Lease costs paid to Treasurer's Office)	\$2,131,933	\$5,034,100	\$9,654,582	\$8,142,292	\$6,412,403	\$6,411,015	\$6,409,343	\$44,195,668	\$23,267,623 still owed on machines
Operations & Maintenance (Diebold/Premier)	\$914,704	\$4,713,220	\$3,869,564	\$6,979,464	\$11,325,479	\$8,420,759	(Diebold contract ends mid-year) \$7,697,720	\$43,920,910	At least \$45,753,684
Operations & Maintenance (Non-Diebold)	\$0	\$1,605,088	\$1,008,188	\$1,963,830	\$2,025,000	\$1,425,000	\$1,325,000	\$9,352,106	At least \$9,502,660
TOTAL	\$3,046,637	\$11,352,408	\$14,532,334	\$17,085,586	\$19,762,882	\$16,256,774	\$15,432,063	\$97,468,684	At least \$78,523,967

Data compiled by Maryland Department of Legislative Services, 2006. FY2009 estimates updated February 2008 with DLS data.

Source: State Board of Elections

Notes: Assumes no change to current voting system.

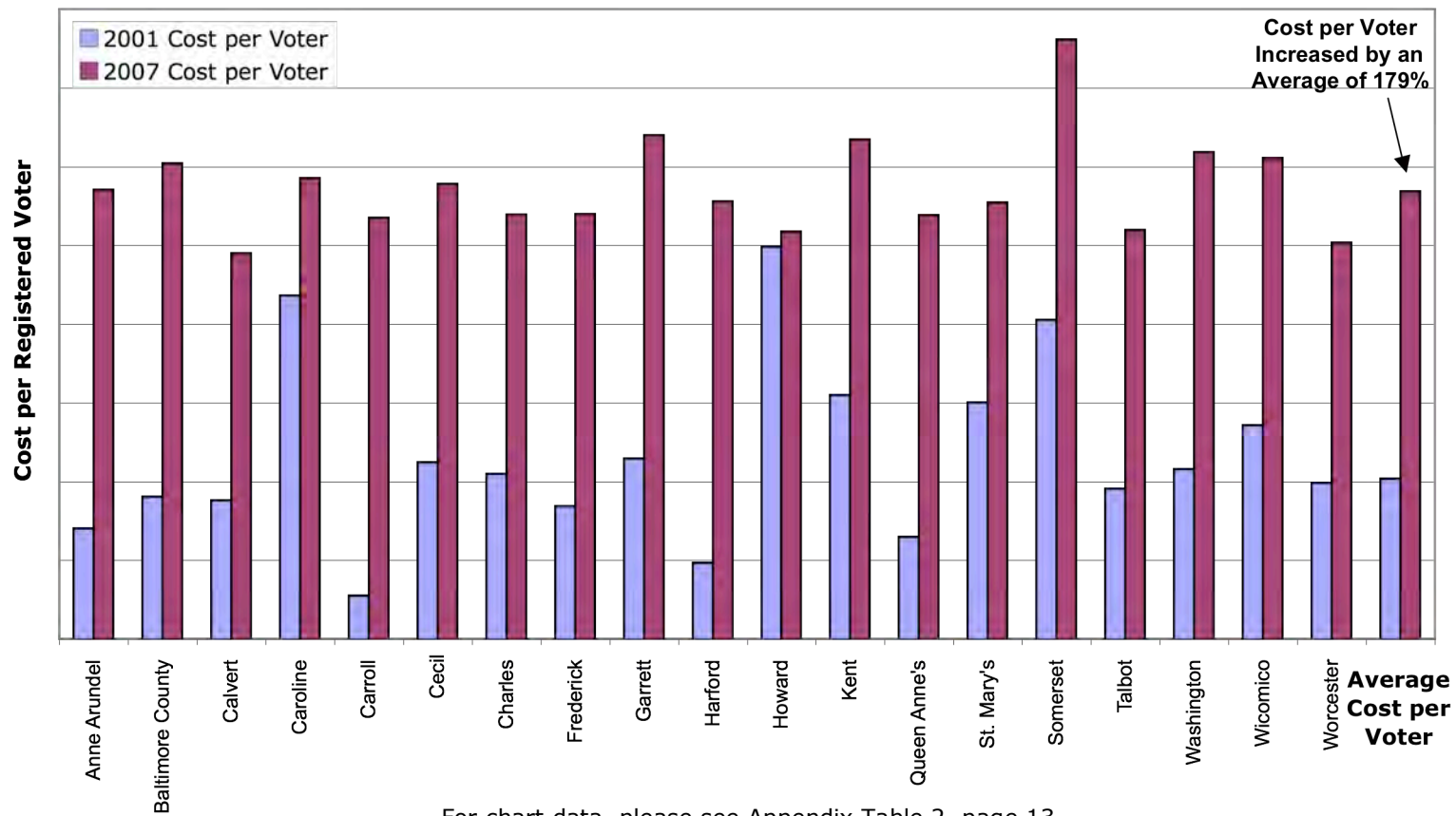
Machine payments for Baltimore City machines estimated at \$1.9 million per year for 5 years beginning in fiscal 2006.

Diebold/Premier contract runs through the middle of fiscal 2009. Services would need to be rebid at that time if we retain the current voting system.

County Costs Are Rising, Too

Most Maryland counties that previously used optical scan voting systems saw their voting equipment costs rise dramatically when they switched to touch-screen voting machines — **an average increase of 179%** in the cost per voter — **even though the state now pays half the cost of the voting equipment.**

Voting Equipment Operating Cost Increases in Maryland Counties that Switched from Optical Scan to Touch-screen Systems



For chart data, please see Appendix Table 2, page 13

Less equipment means lower costs

The reason for the higher expense of touch-screen systems is that they require so much more equipment. An optical scan system uses only one optical scanner per precinct plus a ballot-marking station that enables voters with physical disabilities or language barriers — or those who simply prefer a touch-screen interface — to mark and verify a paper ballot. With an average of 10 touch-screen machines currently deployed in each precinct in Maryland, **this is an equipment reduction of 80%**.



All of the touch-screen machines in a precinct (an average of 10 machines)

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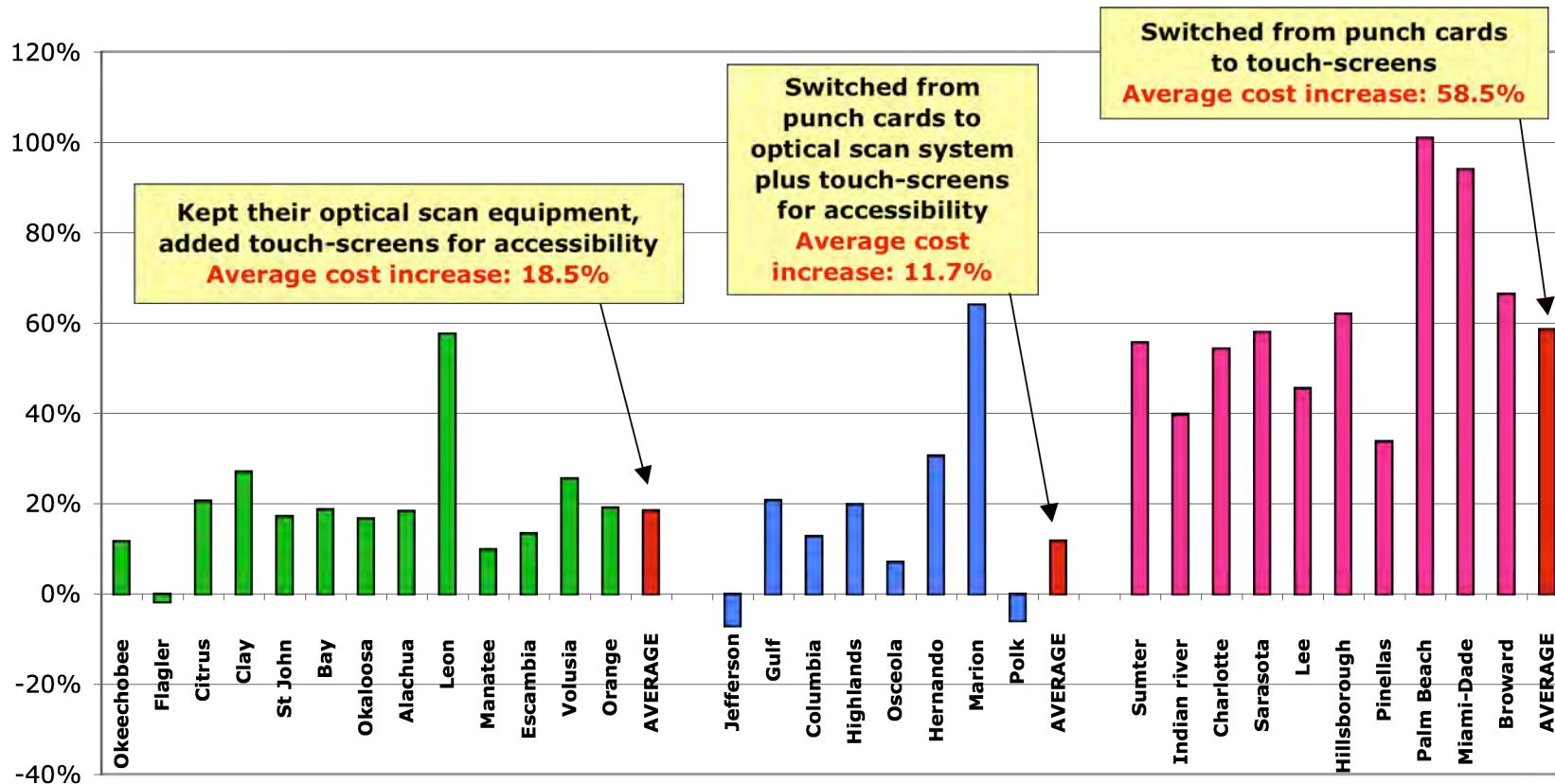
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**Can be replaced by just 2 machines:
1 optical scanner and 1 ballot-marking station
to assist voters with disabilities or language barriers
in marking and verifying their paper ballots**

A 2005 study of Florida's election costs after implementing the Help America Vote Act showed that counties that had switched to touch-screen voting systems had **average cost increases 3 to 5 times higher** than those that kept or switched to optical scan voting systems.

Change in Election Operating Costs in Florida Counties After HAVA, Clustered by Equipment Type



NOTE: For chart data, please see Appendix Table 3, pages 14-15. DATA SOURCE: Myerson, Rosemarie and Richard Myerson, Report on a Survey of Changes in Total Annual Expenditures for Florida Counties Before and After Purchase of Touch Screens and A Comparison of Total Annual Expenditures for Touch Screens and Optical Scanners, December 2005. <http://www.votersunite.org/info/FloridaElectionCostStudy12-01-05.pdf>

Current Costs of Maryland's Touch-Screen Voting System

STATEWIDE COSTS*

	FY03	FY04	FY05	FY06	FY07	FY08	FY09	Total
Hardware Payments	2,131,933	5,034,100	9,654,582	8,142,292	6,412,403	6,411,015	6,409,343	44,195,668
Maintenance		0	0	449,880	1,509,318	1,628,890	828,455	4,416,543
Warehouse		237,797	237,215	348,166	321,996	318,874	316,674	1,780,722
Transportation		280,776	280,776	177,198	775,126	517,695	355,177	2,386,748
All Training (SBE/LBE/Judges)		341,271	56,271	47,877	183,624	111,385	88,633	829,061
Absentee Ballot Printing		72,023	72,023	178,222	214,462	116,476	110,428	763,634
Voter Outreach		1,000,000	354,394	500,000	444,120	50,000	50,000	2,398,514
Support Services		1,064,140	1,119,422	1,757,665	2,018,814	1,696,040	2,110,978	9,767,059
Total Services	914,704	2,996,007	2,120,101	3,009,128	3,958,142	2,810,470	3,031,890	18,840,442
Technical Support		1,497,263	1,529,513	3,520,456	5,207,019	3,607,748	1,529,145	16,891,144
Acceptance Testing		491,400	0	163,830	75,000	75,000	75,000	880,230
IV&V		380,000	191,673	1,000,000	1,200,000	600,000	500,000	3,871,673
Set-up/Breakdown		182,000	182,000	0	545,200	326,601	239,701	1,475,502
DRE Ballot Preparation		37,950	37,950	0	105,800	47,050	43,550	272,300
Project Mgmt		733,688	816,515	800,000	750,000	750,000	750,000	4,600,203
Total Optional Services		3,322,301	2,757,651	5,484,286	7,883,019	5,406,399	3,137,396	27,991,052
Total	3,046,637	11,352,408	14,532,334	17,085,586	19,762,882	16,256,774	13,407,084	95,443,705

*This chart assumes that the State continues to use the voting system without any additional verification methodology.

Notes:

1. Hardware total for Phase III which begins in FY2006 totals \$7,570,750, financed over five years, estimated at \$1.9 million/year.
2. FY2003, 2004, and 2005 were not altered since they occurred in the past.
3. Voter Outreach: This chart assumes that SBE will provide the brochure the LBEs pay for printing/distribution costs as needed. \$50,000 is included for misc unexpected costs.
4. Diebold currently provides all services except for Project Mgmt and IV&V and Acceptance Testing (which are all provided through separate vendors). The Diebold contract is through half of FY09; the services will be rebid at that point.
5. If the 2006 primary is moved forward, the bulk of the training costs will occur in FY06 rather than FY07.

⁶ Provided by the staff of the SBE, January 2006.

SOURCE: "A Study of Vote Verification Technologies, Part I: Technical Study," UMBC National Center for the Study of Elections, Feb.2006, page 7, Table 1.

Projected Costs of an Optical Scan Voting System

	Total # of Unit		Total cost	Cost per								
	units	price		Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	
OPTICAL SCANNER COSTS												
Purchase price	2,000	\$ 4,200	\$ 8,400,000	\$ 1,680,000	\$ 1,680,000	\$ 1,680,000	\$ 1,680,000	\$ 1,680,000	\$ 1,680,000	\$ 1,680,000		
Voting booths	20,000	\$ 200	\$ 4,000,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000		
Warranty	2,000	\$ 150	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Software license	2,000	\$ 5	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
BALLOT MARKING MACHINE COSTS												
Purchase price	2,000	\$ 4,950	\$ 9,900,000	\$ 1,980,000	\$ 1,980,000	\$ 1,980,000	\$ 1,980,000	\$ 1,980,000	\$ 1,980,000	\$ 1,980,000		
Warranty	2,000	\$ 330	\$ 660,000	\$ 660,000	\$ -	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000
Interest on capital lease			\$ 3,000,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000		
OPERATING COSTS												
Storage	4,000	\$ 17.35	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400	\$ 69,400
Transportation	4,000	\$ 19.34	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360	\$ 77,360
Paper ballots	3,200,000	\$ 0.25	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
Training	Average per election FY06-FY08			\$ 85,722	\$ 350,000	\$ 85,722	\$ 85,722	\$ 85,722	\$ 85,722	\$ 85,722	\$ 85,722	\$ 85,722
Voter Outreach				\$ 500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Support Services	Allows twice the current average cost per machine			\$768,073	\$768,073	\$ 768,073	\$ 768,073	\$ 768,073	\$ 768,073	\$ 768,073	\$ 768,073	\$ 768,073
Technical Support	Allows the current average cost per machine			\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000	\$ 650,000
Acceptance Testing	Allows the current average cost per election			\$ 150,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
IV&V	Allows the current average cost per machine			\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Set-up/Breakdown	Allows the current average cost per machine			\$61,179	\$ 61,179	\$ 61,179	\$ 61,179	\$ 61,179	\$ 61,179	\$ 61,179	\$ 61,179	\$ 61,179
DRE Ballot Prep	Allows the current average cost per election			\$50,950	\$ 50,950	\$ 50,950	\$ 50,950	\$ 50,950	\$ 50,950	\$ 50,950	\$ 50,950	\$ 50,950
Project Managemt	Allows the current average cost per machine			\$161,404	\$ 161,404	\$ 161,404	\$ 161,404	\$ 161,404	\$ 161,404	\$ 161,404	\$ 161,404	\$ 161,404
YEAR TOTAL				\$ 8,858,365	\$ 8,929,087	\$ 8,929,087	\$ 8,729,087	\$ 9,029,087	\$ 3,969,087	\$ 3,969,087	\$ 3,969,087	\$ 3,969,087

Sources:

Optical scanner costs from State of Utah Contract # AR1910, Revision #2, July 7, 2006 URL: 168.179.230.198/agencies/contracts/AR1910.pdf

Ballot-marking machine costs from North Carolina Bid #: ITS-002724, Best and Final Offer Cost Proposal Table, Part 1, ES&S AutoMARK. www.ncacc.org/documents/equipmentpricing-ess.pdf

Voting booth prices from www.essvote.com/supplyshop3/products.php?cat=VOTING%20BOOTH&sub=45. Many voting booth styles are available, ranging in price from \$17.50 for cardboard privacy screens to \$320 for accessible voting booths with lights. We estimated that most polling places would require a mixture of styles at an average price of \$200 each, with enough booths to accommodate 20,000 voters at once for equivalency with the touch-screen capacity.

Paper ballot printing costs from SBE-2002-01 Best and Final Offer, November 19, 2001. Competitive bidding may reduce this cost.

Operating costs are based upon the chart shown on the previous page. Operating costs were averaged for each category from FY2006 – FY2008 when the AccuVote TS machines were fully deployed statewide. Where costs appeared to depend upon the total number of AccuVote TS machines in use, the cost per machine was calculated and applied to the number of optical scanners and ballot marking machines needed.

Assumptions:

- Maryland would purchase 2,000 Diebold/Premier AccuVoteOS optical scanners (the same machines currently used to count our absentee and provisional ballots) and 2,000 ballot-marking machines, approximately 1 per precinct/polling location with about 10% spares for back-up.
- Maryland has about 3.2 million registered voters. Since turnout is never 100%, printing 3.2 million paper ballots would allow for some ballot spoilage.
- Some costs, such as paper ballot printing costs, would vary by year depending upon the number of elections occurring in a given fiscal year. These projections assume an average of 1 election per fiscal year.

How much would it cost to switch?

If the cost of an optical scan system is \$25 million		
If capital lease is repaid in	Total cost per year	State's share if split 50/50 with counties
5 years	\$ 5 million	\$ 2.5 million
7 years	\$ 3.6 million	\$ 1.8 million
10 years	\$ 2.5 million	\$ 1.25 million
If the cost of an optical scan system is \$29 million		
If capital lease is repaid in	Total cost per year	State's share if split 50/50 with counties
5 years	\$ 5.8 million	\$ 2.9 million
7 years	\$ 4.1 million	\$ 2 million
10 years	\$ 2.9 million	\$ 1.5 million
If the cost of an optical scan system is \$33 million		
If capital lease is repaid in	Total cost per year	State's share if split 50/50 with counties
5 years	\$ 6.6 million	\$ 3.3million
7 years	\$ 4.7 million	\$ 2.4 million
10 years	\$ 3.3 million	\$ 1.7 million

How much would Maryland save by switching?

With 80% less equipment to manage,
an optical scan voting system may decrease operating costs by 50% or more.

If current annual operating costs are	If we save 40%	New annual operating cost	If we save 50%	New annual operating cost	If we save 60%	New annual operating cost
\$ 8M	\$ 3.2M	\$ 4.8M	\$ 4.0M	\$ 4.0M	\$ 4.8M	\$ 3.2M
\$ 10M	\$ 4.0M	\$ 6.0M	\$ 5.0M	\$ 5.0M	\$ 6.0M	\$ 4.0M
\$ 12M	\$ 4.8M	\$ 7.2M	\$ 6.0M	\$ 6.0M	\$ 7.2M	\$ 4.8M

Operating costs of the touch-screen system averaged \$10.7 million per year for fiscal years 2006 – 2008. Depending upon the repayment period of the capital lease and whether the cost is split with counties, as with the current voting system, **the savings in operating costs may largely offset the costs of purchasing an optical scan system.** If the current system has residual value, that could further reduce the purchase cost and the savings could be realized even sooner.

Each year we continue to use the touch-screen equipment, we are spending millions of tax dollars that could be put to more productive use than warehousing and maintaining thousands of expensive machines that are used an average of one day each year.

Moving Maryland to optical scan voting as soon as possible is a fiscally responsible choice, especially in a time of lean budgets.

APPENDIX

Table 1

State Board of Elections Annual Budget, by Funding Source

	Fiscal 1997	Fiscal 2000	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Fiscal 2006	Fiscal 2007	Fiscal 2008	TOTAL
State Funds	\$ 1.300	\$ 3.136	\$ 3.997	\$ 4.570	\$ 6.857	\$ 10.134	\$ 5.297	\$ 3.875	\$ 7.752	\$ 16.495	\$ 62.113
Special Funds							\$ 3.013	\$ 5.683	\$ 18.230	\$ 8.934	\$ 35.860
Federal Funds					\$ 0.013	\$ 0.075	\$ 13.775	\$ 17.962	\$ 3.522	\$ 2.179	\$ 37.526
TOTAL	\$ 1.300	\$ 3.136	\$ 3.997	\$ 4.570	\$ 6.87	\$10.209	\$ 22.085	\$27.520	\$ 29.504	\$27.608	\$ 135.499

NOTES: Costs are in millions. Special Funds include county contributions to the voting equipment costs as well as transfers from Dedicated Purpose Accounts.

Source: Analyses of the Maryland Executive Budget, Fiscal Years 2002 – 2008, Department of Legislative Services.

Table 2

**Voting Equipment Operating Cost Increases in Maryland Counties
that Switched from Optical Scan to Touch-screen Systems**

COUNTY	Registered Voters, 2000	FY 2001 Election Costs	Cost per Voter	Registered Voters, 2006	FY 2007 Voting System Costs*	Cost per Voter	Percent Increase
Anne Arundel	265,005	\$186,190	\$0.70	309,069	\$882,218	\$2.85	306%
Baltimore County	405,819	\$366,620	\$0.90	458,161	\$1,384,987	\$3.02	235%
Calvert	39,494	\$34,759	\$0.88	50,360	\$123,321	\$2.45	178%
Caroline	13,758	\$30,000	\$2.18	16,192	\$47,431	\$2.93	34%
Carroll	81,260	\$22,500	\$0.28	99,316	\$265,614	\$2.67	866%
Cecil	40,660	\$45,710	\$1.12	52,499	\$151,779	\$2.89	157%
Charles	59,448	\$62,400	\$1.05	77,389	\$208,697	\$2.70	157%
Frederick	106,907	\$90,068	\$0.84	126,473	\$341,504	\$2.70	221%
Garrett	15,430	\$17,662	\$1.14	17,790	\$56,917	\$3.20	180%
Harford	118,118	\$57,000	\$0.48	136,554	\$379,449	\$2.78	476%
Howard	140,526	\$350,000	\$2.49	165,019	\$426,880	\$2.59	4%
Kent	9,888	\$15,312	\$1.55	11,961	\$37,945	\$3.17	105%
Queen Anne's	21,672	\$14,055	\$0.65	28,173	\$75,890	\$2.69	315%
St. Mary's	45,158	\$67,914	\$1.50	54,755	\$151,779	\$2.77	84%
Somerset	11,392	\$23,102	\$2.03	12,451	\$47,431	\$3.81	88%
Talbot	20,937	\$20,000	\$0.96	25,563	\$66,403	\$2.60	172%
Washington	69,422	\$74,891	\$1.08	79,776	\$246,642	\$3.09	187%
Wicomico	42,528	\$57,744	\$1.36	49,671	\$151,779	\$3.06	125%
Worcester	30,431	\$30,200	\$0.99	33,903	\$85,376	\$2.52	154%
TOTAL or AVERAGE	1,537,853	\$1,566,127	\$1.02	1,805,075	\$5,132,042	\$2.84	179%

* Does not include the counties' FY 2007 costs for implementing the statewide voter registration data base or the e-poll books.

SOURCES: 2001 data from "Review of Election Administration in Maryland," Department of Legislative Services, November 2001, p. 14-15.

2007 data from the State Board of Elections.

Table 3

**Comparison of Changes in Total Annual Election Costs for Florida Counties
Before and After Implementation of the Help America Vote Act**

COUNTIES THAT SWITCHED FROM PUNCH CARD TO OPTICAL SCAN SYSTEMS with Accessible Touch-screens

County	Pre-HAVA System	HAVA System	2000 and 2001 Averages			2003 and 2004 Averages			Percent Change
			Registered Voters	Total Spent	Cost per 1K Voters	Registered Voters	Total Spent	Cost per 1K Voters	
Jefferson	Punch card	Optical scan	7,961	\$ 150,998	\$ 18,967	8,937	\$ 157,589	\$ 17,633	-7.03%
Gulf	Punch card	Optical scan	9,862	\$ 174,176	\$ 17,661	9,356	\$ 199,438	\$ 21,317	20.70%
Columbia	Punch card	Optical scan	31,674	\$ 365,506	\$ 11,540	33,541	\$ 436,368	\$ 13,010	12.74%
Highlands	Punch card	Optical scan	53,394	\$ 362,233	\$ 6,784	59,247	\$ 481,839	\$ 8,133	19.88%
Osceola	Punch card	Optical scan	90,538	\$ 1,297,933	\$ 14,336	117,108	\$ 1,798,435	\$ 15,357	7.12%
Hernando	Punch card	Optical scan	97,372	\$ 575,354	\$ 5,909	107,772	\$ 832,271	\$ 7,723	30.69%
Marion	Punch card	Optical scan	146,312	\$ 664,026	\$ 4,538	175,683	\$ 1,308,219	\$ 7,446	64.08%
Polk	Punch card	Optical scan	244,414	\$ 2,143,605	\$ 8,770	283,032	\$ 2,335,256	\$ 8,251	-5.92%
AVERAGE					\$ 11,063			\$ 12,359	11.71%

COUNTIES THAT SWITCHED FROM PUNCH CARD TO TOUCH-SCREEN SYSTEMS

Sumter	Punch card	Touchscreen	32,009	\$ 512,169	\$ 16,001	38,023	\$ 947,370	\$ 24,916	55.72%
Indian river	Punch card	Touchscreen	71,868	\$ 663,132	\$ 9,227	77,468	\$ 999,450	\$ 12,901	39.82%
Charlotte	Punch card	Touchscreen	99,256	\$ 739,344	\$ 7,449	108,821	\$ 1,251,019	\$ 11,496	54.33%
Sarasota	Punch card	Touchscreen	220,246	\$ 1,752,829	\$ 7,959	233,005	\$ 2,929,420	\$ 12,572	57.97%
Lee	Punch card	Touchscreen	248,847	\$ 2,015,264	\$ 8,098	291,948	\$ 3,440,887	\$ 11,786	45.53%
Hillsborough	Punch card	Touchscreen	503,939	\$ 2,806,250	\$ 5,569	569,575	\$ 5,137,388	\$ 9,020	61.97%
Pinellas	Punch card	Touchscreen	570,970	\$ 3,820,141	\$ 6,691	572,858	\$ 5,129,234	\$ 8,954	33.83%
Palm Beach	Punch card	Touchscreen	663,036	\$ 2,831,115	\$ 4,270	722,820	\$ 6,202,863	\$ 8,581	100.97%
Miami-Dade	Punch card	Touchscreen	892,174	\$ 7,143,000	\$ 8,006	968,296	\$ 15,040,000	\$ 15,532	94.00%
Broward	Punch card	Touchscreen	903,452	\$ 4,666,420	\$ 5,165	979,747	\$ 8,423,192	\$ 8,597	66.45%
AVERAGE					\$ 7,843			\$ 12,436	58.55%

Note: Counties in each category are listed in ascending order by 2000-2001 population.

Comparison of Changes in Total Annual Election Costs for Florida Counties Before and After Implementation of the Help America Vote Act

(continued from previous page)

COUNTIES THAT KEPT THEIR EXISTING OPTICAL SCAN SYSTEMS, Adding Touch-screens for Accessibility

County	Pre-HAVA System	HAVA System	2000 and 2001 Averages			2003 and 2004 Averages			Percent Change
			Registered Voters	Total Spent	Cost per 1K Voters	Registered Voters	Total Spent	Cost per 1K Voters	
Okeechobee	Optical Scan	Optical Scan	17,128	\$ 271,892	\$ 15,874	17,591	\$ 311,783	\$ 17,724	11.65%
Flagler	Optical scan	Optical scan	34,240	\$ 352,836	\$ 10,305	43,118	\$ 436,713	\$ 10,128	-1.71%
Citrus	Optical scan	Optical scan	80,592	\$ 613,974	\$ 7,618	86,409	\$ 794,123	\$ 9,190	20.63%
Clay	Optical scan	Optical scan	84,361	\$ 794,214	\$ 9,414	96,408	\$ 1,152,973	\$ 11,959	27.03%
St John	Optical scan	Optical scan	88,258	\$ 770,522	\$ 8,730	101,816	\$ 1,041,702	\$ 10,231	17.19%
Bay	Optical scan	Optical scan	95,846	\$ 703,542	\$ 7,340	93,799	\$ 817,695	\$ 8,718	18.76%
Okaloosa	Optical scan	Optical scan	113,616	\$ 904,208	\$ 7,958	120,674	\$ 1,121,262	\$ 9,292	16.75%
Alachua	Optical scan	Optical scan	120,005	\$ 925,039	\$ 7,708	129,170	\$ 1,178,672	\$ 9,125	18.38%
Leon	Optical scan	Optical scan	147,451	\$ 1,109,945	\$ 7,528	151,506	\$ 1,796,887	\$ 11,860	57.56%
Manatee	Optical scan	Optical scan	159,408	\$ 1,141,420	\$ 7,160	185,033	\$ 1,455,652	\$ 7,867	9.87%
Escambia	Optical scan	Optical scan	173,129	\$ 1,503,043	\$ 8,682	176,817	\$ 1,740,157	\$ 9,842	13.36%
Volusia	Optical scan	Optical scan	254,065	\$ 1,769,823	\$ 6,966	288,805	\$ 2,525,418	\$ 8,744	25.53%
Orange	Optical scan	Optical scan	382,138	\$ 4,218,509	\$ 11,039	432,945	\$ 5,692,856	\$ 13,149	19.11%
AVERAGE					\$ 8,948			\$ 10,602	18.49%

Note: Counties in each category are listed in ascending order by 2000-2001 population.

DATA SOURCE: Myerson, Rosemarie and Richard Myerson, Report on a Survey of Changes in Total Annual Expenditures for Florida Counties Before and After Purchase of Touch Screens and A Comparison of Total Annual Expenditures for Touch Screens and Optical Sca