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ELECTIONS

Elections and Primaries Generally: Require Permanent Paper Record of Votes Cast on Electronic Recording Voting Systems for Recount and Audit Purposes; Require All Electronic Voting Systems to Produce a Permanent Paper Record of the Votes Recorded on These Systems for Each Voter; Provide that Voters Have an Opportunity to Verify this Record After Voting; Provide that These Paper Records Shall Be Retained for Use in Recounts and Election Challenge Proceedings

BILL NUMBER: SB 500
SUMMARY: In 2004, the Georgia General Assembly failed to enact SB 500. This bill would have amended the Georgia Election Code by requiring that electronic voting machines create permanent paper records of ballots cast. Additionally, SB 500 would have allowed voters to verify these paper records after voting and retain the records for possible recounts. Although an amended version of the bill passed the Senate, it did not reach the floor of the House for debate. However, because the bill deals with a subject that is generating debate throughout the country—the security of electronic voting—SB 500 is worthy of examination.

History

The issue of security in electronic voting is a hot topic.¹ Since the 2000 presidential election, states have scrambled to implement

1. See Carlos Campos, *Bill: Keep Paper Trail of Voting*, ATLANTA J. CONST., Feb. 10, 2004, at B4, available at 2004 WL 68883599.

modern, more reliable voting systems than the punch card machines that generated so much controversy in Florida and elsewhere.² Georgia was the first state to use state-wide electronic voting machines.³ However, these machines have failed to quell the fears of those concerned with the integrity of the electoral process.⁴ Voting rights advocacy groups, among others, increasingly call the security of the machines into question.⁵

One of the primary security concerns is that the machines do not generate an auditable paper trail.⁶ In the event that someone contests an election, requiring a recount, these machines can only generate a numerical tally of the total number of votes cast for each candidate.⁷ Election officials can then cross-reference the numerical tally against the voters' certificates signed at the precincts to ensure the machines' results indicate the correct number of voters.⁸ However, there is no way to review each ballot to determine whether the total number of votes for each candidate is correct.⁹ Thus, if a question arises as to whether someone tampered with a computerized voting system to alter election results, or if there is even a simple challenge to a close election that calls for a recount, election officials have no way to audit the reported number of votes.¹⁰

Aviel Rubin, a Johns Hopkins University professor, proved that electronic voting machines are subject to tampering when his students infected a voting machine with a code that changed votes and then erased itself from the machine, making the change undetectable.¹¹ With respect to electronic voting security, Rubin told the United States Election Assistance Commission ("EAC") that

2. *See id.*

3. *Id.*

4. *See id.*

5. *See* Robert Tanner, AP, *Paper Trail Sought for Electronic Voting: Growing Number of State Officials Demanding Backups*, MSNBC.com, at <http://msnbc.msn.com/id/4648205/> (Apr. 1, 2004); Campos, *supra* note 1.

6. *See* Campos, *supra* note 1.

7. Elise Ackerman, *Electronic Voting Raises Recount Angst: Critics Say Errors Could Go Undetected*, SAN JOSE MERCURY NEWS, May 13, 2004, at 1A, available at 2004 WL 79376045.

8. Dick Pettys, *Doubts Linger About Georgia's New Vote System*, GWINNETT DAILY POST, Feb. 15, 2004, available at <http://www.gwinnettdailyonline.com/GDP/archive/article1A6E8513CBCD4F27985785BC528E5F6C.asp>.

9. *See* Ackerman, *supra* note 7.

10. *See id.*

11. Daniel Kohanski, *Electronic Voting Is Still a Risky Gamble*, SAN FRANCISCO CHRON., May 12, 2004, available at <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2004/05/12/EDGDU6J7EJ1.DTL>.

“[o]n a spectrum of terrible to very good, we are sitting at terrible,” and he maintained that a paper backup system is essential in the short term.¹² Referring to the cards that control the machines, Rubin said, “A 15-year-old in a garage could manufacture smart cards and sell them on the Internet that would allow for multiple votes.”¹³ Additionally, multiple poll workers often have access to vital system components, making the machines vulnerable.¹⁴

In fact, several incidents of electronic voting irregularities have already occurred, with at least two irregularities arising in already embattled Florida.¹⁵ In a January 2004 election in Broward County, the tally of voters did not reflect 134 individuals who signed in at a polling place.¹⁶ In Palm Beach County, poll workers failed to activate the voting machines, thus preventing voters from voting in a March 2004 primary.¹⁷ That same month in San Diego County, California, electronic voting machines may have failed to count hundreds of votes when the machines malfunctioned in more than half of the polling places.¹⁸ More ominously, election officials discovered that an electronic voting machine subtracted votes for a candidate in a November 2003 election in Fairfax, Virginia.¹⁹ A paper trail would have enabled poll workers to account for these votes.²⁰

12. Associated Press, *Computer Expert: E-Voting Systems Flawed*, CNN.com, at <http://edition.cnn.com/2004/TECH/05/05/electronicvoting.ap/index.html> (May 5, 2004) [hereinafter Associated Press].

13. Russ Mitchell, *Electronic Voting Causing Concern*, CBSNEWS.com, at <http://www.cbsnews.com/stories/2004/01/03/eveningnews/main591185.shtml> (Jan. 3, 2003).

14. See Ackerman, *supra* note 7 (noting the “widespread practice of sending machines home with election workers before an election” and quoting a computer scientist as saying, “If I have the machine home in my basement . . . I can replace anything I want. You run the risk of unlimited manipulation of votes.”); see also *Printers Wanted for Voting Machines*, 11Alive.com, at http://www.11alive.com/news/news_article.aspx?storyid-43824 (last visited May 14, 2004) (quoting Rick Day of the Libertarian Party as saying, “I was a poll worker, so it’s very easy at the end of the day to remove the data card, to slip the data card in your pocket, pull another data card out and then enter into the system.”).

15. Ackerman, *supra* note 7; *Senators Call for Paper Trail in E-Voting: Glitches Cited in Florida’s Primary Tuesday*, CNN.com, at <http://us.cnn.com/2004/ALLPOLITICS/03/10/voting> (Mar. 11, 2004) [hereinafter *Senators*].

16. Ackerman, *supra* note 7.

17. *Senators*, *supra* note 15.

18. Associated Press, *supra* note 12.

19. Ackerman, *supra* note 7.

20. See Tanner, *supra* note 5 (“An effort to erase doubts about new ATM-style voting machines by backing up digital votes with paper records is gaining ground nationwide, as state officials heed warnings about security and potentially messy recounts.”).

In 2003, Senator Nadine Thomas introduced a bill similar to SB 500 in the Georgia General Assembly.²¹ That bill, SB 340, sought to amend the Georgia Election Code (“GEC”) “to require that direct recording electronic voting systems authorized for use in the state have a voter inspected, auditable paper trail,” among other things.²² However, the bill died in the Senate Ethics Committee.²³

Bill Tracking of SB 500

Senators Thomas E. Price of the 56th district, Bill Stephens of the 51st district, and Eric Johnson of the 1st district sponsored SB 500.²⁴ Following the first reading of SB 500 on February 10, 2004, Lieutenant Governor Mark Taylor referred the bill to the State and Local Government Operations Committee (“SLGOC”), which favorably reported the bill, by substitute, on March 12, 2004.²⁵

As introduced, SB 500 sought, in substantive part, to amend the GEC. The bill’s goal was as follows:

[T]o provide [that] all electronic recording voting systems . . . produce a permanent paper record of the votes recorded on such systems for each voter; to provide that voters have an opportunity to verify such record after voting; [and] to provide that such paper records be retained for use in recounts and election challenge proceedings.²⁶

The SLGOC offered a Committee substitute that modified the bill in small but significant ways. First, it added a provision that would have amended Georgia Code section 21-2-379.10, which deals with electors’ procedure, to include procedures for voters to review and correct or approve the paper record of the ballot.²⁷ The SLGOC also

21. See SB 340, as introduced, 2003 Ga. Gen. Assem.

22. *Id.*

23. See State of Georgia Final Composite Status Sheet, SB 340, Mar. 27, 2003 (Apr. 25, 2003).

24. SB 500, as introduced, 2004 Ga. Gen. Assem.

25. See State of Georgia Final Composite Status Sheet, SB 500, Mar. 12, 2004 (May 19, 2004).

26. SB 500, as introduced, 2004 Ga. Gen. Assem. See 1998 Ga. Laws 1231, § 37, at 1247 (codified at O.C.G.A. § 21-2-379.1 (2002)) for the specific section of the Georgia Election Code that SB 500 sought to amend. See 1964 Ga. Laws 26, § 1, at 28 (codified at O.C.G.A. § 21-2-1 (2002)) for the assertion that one can refer to and cite this Chapter of the Code as the “Georgia Election Code.”

27. Compare SB 500 (SCS), 2004 Ga. Gen. Assem., with 2002 Ga. Laws 598, §§ 1-4 (codified at O.C.G.A. § 21-2-379.10 (2002)).

changed the effective date of the proposed act from October 1, 2004 to July 1, 2006.²⁸ This altered date reflects the Committee's concern about acting too quickly to evaluate the chosen system properly.²⁹

The Committee also proposed the addition of a new Code section, which would have made it unnecessary for Georgia to await federal approval of voting systems with paper trail capacities.³⁰ Pursuant to the Help America Vote Act of 2002 ("HAVA"), the EAC will adopt standards for electronic voting systems in the future; however, the sponsors of SB 500 were afraid that awaiting federal action would leave Georgia without an auditable system for too long.³¹ Finally, the Committee substitute provided that the Secretary of State could not promulgate rules prohibiting the use of paper trail systems with electronic voting machines.³² These changes reflect a compromise between the sponsors of SB 500 and the SLGOC; this compromise not only sought to ensure that officials did not act hastily but also addressed concerns that the Secretary of State might refuse to implement a paper trail in the absence of EAC regulations.³³

Floor amendment 1, however, altered the Committee substitute, reflecting one of the major concerns expressed during the floor debate—that the EAC could promulgate rules under HAVA that would render Georgia's voting machines non-conforming.³⁴ Thus, amendment 1 struck the SLGOC provision that would have allowed Georgia to move forward in the absence of EAC standards.³⁵ The amendment also postponed the effective date of the proposed act until after the EAC adopts standards for paper trail systems and until Congress appropriates funds to pay for the paper trail system.³⁶ The

28. Compare SB 500 (SCS), 2004 Ga. Gen. Assem., with SB 500, as introduced, 2004 Ga. Gen. Assem.

29. See Audio Recording of Senate Proceedings, Mar. 17, 2004 (remarks by Sen. Thomas E. Price), at http://www.georgia.gov/00/channel_title/0,2094,4802_6107103,00.html [hereinafter Senate Audio] (explaining that "we went through the committee process and . . . one of the concerns was, you don't want to move too fast [, and] . . . we agreed and moved the effective date in section 4 to July 1, 2006").

30. Compare SB 500 (SCS), 2004 Ga. Gen. Assem., with SB 500, as introduced, 2004 Ga. Gen. Assem.

31. Senate Audio, *supra* note 29.

32. See SB 500 (SCS), 2004 Ga. Gen. Assem.

33. Senate Audio, *supra* note 29.

34. See SB 500 (SFA1), 2004 Ga. Gen. Assem.; Senate Audio, *supra* note 29 (remarks by Sens. Charlie Tanksley, Ed Harbison, and Liane Levetan).

35. Compare SB 500 (SFA1), 2004 Ga. Gen. Assem., with SB 500 (SCS), 2004 Ga. Gen. Assem.

36. *Id.*

bill, as passed by the Senate on March 17, 2004, included these provisions.³⁷

Floor Amendment 2 defined the role of the Secretary of State in selecting and certifying any hardware and software that would add ballot printing capabilities to Georgia's electronic voting machines.³⁸ The amendment recognized the Secretary of State's power to promulgate rules and regulations but stipulated that the Secretary of State need not test commercially accepted printers or re-approve voting machines with added printers where the printers do not impair the "accuracy, efficiency, or capacity" of the voting machines.³⁹ The Senators apparently designed this amendment to counteract the opposition of the Secretary of State to the implementation of a paper trail system.⁴⁰ The bill, as passed by the Senate, incorporated these provisions.⁴¹

The final Senate floor amendment addressed concerns that if a paper record was accessible to voters, they might inadvertently or purposefully take the record with them upon leaving the polling place.⁴² Some available systems retain the paper record behind a glass screen, allowing the voter to view, but not access, the ballot receipt, while others allow voters to physically inspect the paper before placing it into a secure ballot box.⁴³ Floor Amendment 3 addressed this concern by providing that Georgia would only use the former type of system.⁴⁴ The Senate included this amendment in the bill passed by the Senate.⁴⁵

The Senate passed the Committee substitute version of SB 500, as amended, on March 17, 2004, following a lengthy and heated

37. See State of Georgia Final Composite Status Sheet, SB 500, Mar. 17, 2004 (May 19, 2004); SB 500, as passed in the Senate, 2004 Ga. Gen. Assem.

38. SB 500 (SFA2), 2004 Ga. Gen. Assem.

39. *Id.*

40. Senate Audio, *supra* note 29 (remarks by Sen. Thomas E. Price); see Carlos Campos, *Some Mistrust Screen Voting: Poll Shows Most Think It's Reliable*, ATLANTA J. CONST., Feb. 29, 2004, at B1, available at 2004 WL 68886255 (indicating that Georgia Secretary of State Cathy Cox opposed adding printers before the EAC acts).

41. See State of Georgia Final Composite Status Sheet, SB 500, Mar. 17, 2004 (May 19, 2004); SB 500, as passed in the Senate, 2004 Ga. Gen. Assem.

42. Senate Audio, *supra* note 29 (remarks by Sen. Peg Blich, et al.).

43. Senate Audio, *supra* note 29 (remarks by Sen. Thomas E. Price).

44. SB 500 (SFA3), 2004 Ga. Gen. Assem.

45. See State of Georgia Final Composite Status Sheet, SB 500, Mar. 17, 2004 (May 19, 2004); SB 500, as passed in the Senate, 2004 Ga. Gen. Assem.

debate.⁴⁶ The Senate sent the bill to the House, and the House read the bill that same day.⁴⁷ Two days later, the House read the bill a second time, and the Speaker referred it to the Government Affairs Committee.⁴⁸ The House took no further action after March 19, 2004.⁴⁹

Analysis

If there is a lesson to learn from the 2000 presidential election it is that the accuracy and reliability of our voting systems are extremely important, and the government must do everything possible to avoid another national crisis like the one Americans endured in the 2000 recount. Regardless of one's political beliefs, it is undeniable that the controversy over the 2000 election cast a cloud on the Administration of President Bush. As Senator Price, sponsor of SB 500, implored,

[A] large part of—in fact, maybe the hallmark of—our system of government is that our citizens have confidence in the fact that, when they go and vote, that their vote counts, that it's counted accurately, and that the ultimate count reflects the will of the people. Anything that decreases that confidence decreases the legitimacy of our democracy.⁵⁰

Electronic voting systems, while more efficient and possibly more accurate than lever or punch card systems, do not provide enough accountability to be an effective substitute for traditional polling systems. A paper ballot, generated at the time of each voter's selections and reviewed by the voter for accuracy, would ensure that officials could audit election results.⁵¹ This would eliminate the potential for wrongdoers to manipulate election results without

46. State of Georgia Final Composite Status Sheet, SB 500, Mar. 17, 2004 (May 19, 2004); see Senate Audio, *supra* note 29.

47. State of Georgia Final Composite Status Sheet, SB 500, Mar. 17, 2004 (May 19, 2004).

48. State of Georgia Final Composite Status Sheet, SB 500, Mar. 19, 2004 (May 19, 2004).

49. *Id.*

50. Senate Audio, *supra* note 29.

51. See Kohanski, *supra* note 11.

detection and would provide a means by which to refute or to affirm any accusations of impropriety.⁵²

While specific standards have yet to be set forth, HAVA stipulates that “the voting system shall produce a permanent paper record with a manual audit capacity for such system.”⁵³ California, Missouri, and Nevada will begin requiring printers for electronic voting machines in future elections as a result of the actions of their respective Secretaries of State, and Illinois has passed legislation requiring printers.⁵⁴ Over a dozen other states are considering legislation to achieve the same result, but Nevada is the only state expected to have the printers in place by the November 2004 presidential election.⁵⁵ Because of the lack of a paper trail, Americans can only hope to avoid electronic voting irregularities like those that have occurred at the state and county level.

The issue of electronic voting is likely to resurface in the 2005 legislative session. Senator David Adelman has already indicated that if reelected he may introduce legislation similar to SB 500.⁵⁶ He expects the issue to face less stringent opposition in light of the ongoing problems with electronic voting systems and the continued attention in the media.⁵⁷ Opponents to SB 500 agree that the issue will likely arise next session. Senator George Hooks, who argued against the passage of SB 500, believes that, while requiring printers is a good idea in concept, Georgia should await EAC standards and federal funding.⁵⁸ However, Senator Adelman has stated that the amendments adding similar provisions to SB 500 weakened the bill so as to “convert it into a purely academic exercise.”⁵⁹

Georgia Secretary of State Cathy Cox has described the paper trail movement as “premature, unnecessary and . . . extremely expensive to implement.”⁶⁰ Other opponents also cite cost as a concern.⁶¹ But as

52. *See id.*

53. Senate Audio, *supra* note 29 (remarks by Sen. Thomas E. Price, quoting HAVA).

54. Tanner, *supra* note 5.

55. *Id.*

56. *See* Telephone Interview with Sen. David Adelman, Senate District No. 42 (June 28, 2004) [hereinafter Adelman Interview].

57. *See id.* (citing the “California debacle”—voting irregularities in California that took place after the failure of SB 500).

58. *See* Telephone Interview with Sen. George Hooks, Senate District No. 14 (June 28, 2004).

59. *See* Adelman Interview, *supra* note 56.

60. Letter from Cathy Cox, Georgia Secretary of State, to members of Georgia General Assembly (Mar. 15, 2004) (on file with the Georgia State University Law Review).

Senator Price posited, “[I]f our citizens don’t have confidence in our electoral process . . . any amount of money we spend to restore that confidence is money well spent.”⁶² Others believe that the problems inherent in the election system require attention on a larger scale.⁶³ Election administrators cite additional managerial demands and complications that might arise from using unfamiliar equipment.⁶⁴ These concerns are not compelling when considered in the light of the chaos that surrounded the 2000 presidential election. Other opponents to SB 500 say the studies finding security weaknesses are flawed.⁶⁵ Nevertheless, every computer user understands that electronic information systems are not infallible and that a reliable backup is the only real protection against computer glitches. Georgia’s electronic voting machine system needs such a backup, and until Georgia adds printers to the machines, the integrity of our democratic form of government remains vulnerable.

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61. See Tanner, *supra* note 5.

62. Senate Audio, *supra* note 29.

63. See Tanner, *supra* note 5 (noting that the League of Women Voters “opposes the push for paper trails . . . because they say it will not provide the blind, disabled and non-English speakers the same access as other voters”). *But see* Associated Press, *supra* note 12 (quoting the President of the League of Women Voters: “We cannot afford to have a replay of 2000 Specific security measures are needed.”).

64. See Tanner, *supra* note 5 (noting concerns about “longer lines on Election Day for people with questions, or who want to vote again after seeing their choices”).

65. See Campos, *supra* note 40 (indicating that Georgia Secretary of State Cathy Cox disputes the finding of the reports concerning the security of the screens); *see also* Pettys, *supra* note 8 (indicating that Professor Rubin admitted he failed to disclose ties to a competitor of Diebold, the manufacturer of electronic voting machines used in Georgia and elsewhere). *But see* Associated Press, *Voting Machine Business Stormy for Diebold*, CNN.com, at <http://edition.cnn.com/2004/TECH/05/13/dented.diebold.ap> (May 14, 2004) (noting that Diebold has made hundreds of thousands of dollars in political contributions, mostly to President Bush and a Senator from Ohio).