

# An Open Letter to the Chatham County Board of Elections

## Chatham County Citizens for Voting Integrity

Thank you for allowing us the time to comment on the voting equipment in Chatham County. Our democracy depends on the reliability, accuracy, accessibility, and transparency of the voting systems we use to choose our representatives. It is our opinion that Chatham County will be best served by an optical scan system paired with disabled-accessible ballot marking devices. There are several good reasons to choose optical scanners over touchscreens, even those that have a voter-verified paper trail (VVPT). These include cost, reliability, and voter confidence.

First, optical scanners are a significantly less expensive voting system than touchscreens. We base this assertion on voter registration data from the Georgia State Board of Elections and an ES&S price sheet from the North Carolina Association of County Commissioners (NCACC).<sup>1</sup> **This should not be construed as an endorsement of ES&S.** However, this information allows us to make an apples-to-apples comparison of actual voting systems sold this year to a nearby state. This comparison shows that Chatham County could save \$511,120 in initial purchase costs by selecting precinct-based optical scanners combined with ballot markers. A cost projection indicates that Chatham County will save \$418,589 over five years by selecting an optical scan-based system<sup>2</sup>.

Second, optical scanners are the preferred voting system of the vast majority of independent computer scientists<sup>3</sup>. Additionally, optical scanners and ballot markers have the support of voters. The voters of Chatham County recognize that the latest technologies are not always the best. The question we should ask ourselves is not “Is it new?” but “Will it work?” In particular, independent disabled voters in have expressed a clear preference for the AutoMARK ballot marker over the available touchscreen systems. Problems with the AutoMARK in other jurisdictions have been due to a single wire that came loose during improper handling during delivery. This problem – which is trivial to detect and fix – should not be used by opponents of election integrity as an opportunity to stall on much-needed improvements to the integrity of elections in Georgia.

Finally, we encourage Chatham County to be part of the solution and not part of the problem. Twenty-seven states have passed election integrity reform bills that restore confidence to the voting process by combining paper-based voting systems with mandatory audits. It was Ronald Reagan who said “Trust, but verify.” While many of us trust the Secretary of State and the Boards of Elections to do their job with professionalism and honesty, as citizens we feel it is our duty to independently verify the integrity of our democracy.

You have an opportunity to move Georgia in the right direction. Please consider these facts when discussing proper voting systems with our state government.

Sincerely,

Chatham County Citizens for Voting Integrity

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<sup>1</sup>The NCACC data provides the uniform, state-wide prices of the hardware and software purchased by that state earlier this year. Since North Carolina is of comparable size and population to Georgia, we believe our State Board would be capable of negotiating a similar deal.

<sup>2</sup>A precinct-by-precinct cost breakdown is included as an appendix to this letter

<sup>3</sup>In 2004 the Association for Computing Machinery – one of the largest and most prestigious professional organizations for computer scientists – took a public policy position that supported strong engineering standards paired with voter-verified paper ballots. It was supported by over 95% of their members. See <https://www.myacm.org/opinion/poll.cfm>

## A Chatham Cost Comparison

| Precinct                 | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|--------------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                          |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Aldersgate Yout 3-5 C    | 1,134  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| American Legion 2-15c    | 481    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Bamboo Farms 6-11c       | 1,429  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Baptist Student 6-4 C    | 694    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Bartlett Middle 5-1 C    | 627    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Beach High Scho 8-12c    | 397    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Bethesda Museum 1-14c    | 1,256  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Bible Baptist C 3-10c    | 1,378  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Bloomingtondale Co 7-8 C | 1,683  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Bull Street Bap 8-2 C    | 1,184  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Butler Elementa 8-11c    | 1,213  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Butler Presbyte 5-3 C    | 793    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Chatham County 1-11c     | 653    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |

| Precinct                 | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|--------------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                          |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Civic Center 8-1 C       | 614    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Cokesbury Metho<br>3-9 C | 548    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Cresthill Bapti 1-13c    | 995    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Derenne Middle 5-4<br>C  | 574    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Eli Whitney Sch<br>3-15c | 534    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Elks Lodge 5-7 C         | 1,109  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Faith Lutheran 1-6 C     | 1,607  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Ferguson Ave Ba<br>1-16c | 964    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| First African B 3-4 C    | 958    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| First Baptist C 4-6 C    | 1,670  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| First Presbyter 1-1 C    | 1,445  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Fred Wessels Co 2-1<br>C | 1,063  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Garden City Com 7-1<br>C | 1,108  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |

| Precinct              | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|-----------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                       |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Garden City Rec 8-15c | 1,094  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Georgetown Elem 6-10c | 2,743  | 1 Audio iVotronic(s)<br>9 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$34,050 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$24,105     |
| Girl Scout Cott 2-13c | 826    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Gospel Temple C 2-4 C | 2,115  | 1 Audio iVotronic(s)<br>7 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$27,460 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$17,515     |
| Gould Elementar 8-14c | 624    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Grace United Me 1-8 C | 607    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Haven Elementar 5-9 C | 998    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Heritage Park 6-3 C   | 1,643  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Holy Spirit Lut 2-5 C | 1,397  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Hope Baptist Ch 6-1 C | 367    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | -\$2,255     |
| Immanuel Baptis 1-9 C | 761    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Islands Comm Ce 4-2 C | 1,591  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Islands Element 4-1 C | 2,256  | 1 Audio iVotronic(s)<br>7 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$27,460 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$17,515     |

| Precinct                 | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|--------------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                          |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Isle Of Hope Ba<br>1-12c | 1,598  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Isle Of Hope Sc<br>1-10c | 878    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Jea Building 1-5 C       | 1,515  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Jenkins High Sc 3-8<br>C | 833    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Largo-tibet Ele 5-11c    | 1,772  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Lazaretto Boat 4-9 C     | 1,133  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Liberty City Ch 5-5<br>C | 1,121  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Lighthouse Bapt 4-4<br>C | 1,789  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| May Howard Elem<br>4-7 C | 1,912  | 1 Audio iVotronic(s)<br>6 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$24,165 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$14,220     |
| Moses Jackson C 8-9<br>C | 785    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Myers Middle Sc 3-7<br>C | 677    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Ogeechee Fire S 8-3<br>C | 611    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Old Courthouse 3-1<br>C  | 331    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |

| Precinct              | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|-----------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                       |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Pooler Town Hal 7-6 C | 2,688  | 1 Audio iVotronic(s)<br>8 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$30,755 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$20,810     |
| Port Wentworth 7-3 C  | 766    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Port Wentworth 7-4 C  | 1,017  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Progressive Rec 7-10c | 2,654  | 1 Audio iVotronic(s)<br>8 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$30,755 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$20,810     |
| Pulaski Element 5-10c | 1,392  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Resur Of Our Lo 8-8 C | 1,185  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Riverside Bapti 2-6 C | 326    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Riverview Healt 3-14c | 1,437  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Rose Of Sharon 3-2 C  | 1,203  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Rothwell Baptis 7-7 C | 2,422  | 1 Audio iVotronic(s)<br>8 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$30,755 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$20,810     |
| S Gardens Chris 2-11c | 990    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Savannah Christ 8-13c | 257    | 1 Audio iVotronic(s)<br>0 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$4,395  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-5,550     |
| Savannah High S 3-3 C | 569    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |

| Precinct                 | Voters | DRE                                                                        |          | Optical Scan                       |         | Cost Savings |
|--------------------------|--------|----------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                          |        | Machines                                                                   | Cost     | Machines                           | Cost    |              |
| Senior Citizens 5-2 C    | 564    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | -\$2,255     |
| Shuman Middle S<br>2-7 C | 547    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | -\$2,255     |
| Skid Is Pres Ch 4-13c    | 1,826  | 1 Audio iVotronic(s)<br>6 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$24,165 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$14,220     |
| Skid Methodist 4-14c     | 1,483  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Skidaway Island<br>4-15c | 1,317  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Southside Bapti<br>3-11c | 867    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Southwest Bapti 7-9<br>C | 4,090  | 1 Audio iVotronic(s)<br>13 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$47,230 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$37,285     |
| Spencer Element 2-2<br>C | 230    | 1 Audio iVotronic(s)<br>0 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$4,395  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | -\$5,550     |
| Ss Fire Departm<br>1-15c | 1,170  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Ss Fire Station 5-8 C    | 1,226  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| St Peters Episc 4-12c    | 1,655  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| St. Francis Cab 6-8 C    | 1,277  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| St. Francis Epi 4-5 C    | 1,607  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s)  | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |

| Precinct                 | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|--------------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                          |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Temple Of Glory<br>8-10c | 1,329  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| The Salvation A 2-9<br>C | 1,977  | 1 Audio iVotronic(s)<br>6 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$24,165 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$14,220     |
| Thunderbolt Tow<br>3-12c | 1,136  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Tiger Arena 3-13c        | 1,539  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Tompkins Middle<br>8-7 C | 449    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| Tompkins Rec Ce<br>8-6 C | 710    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Tybee Island Co<br>4-10c | 1,233  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Tybee Island To<br>4-11c | 1,460  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| W. W. Law Cente 2-3<br>C | 550    | 1 Audio iVotronic(s)<br>1 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$7,690  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-2,255     |
| West Broad St Y 8-5<br>C | 957    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| White Bluff Sch 6-7<br>C | 726    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Whitefield Meth 1-3<br>C | 911    | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Wilder Memorial 5-6<br>C | 1,434  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |

| Precinct              | Voters | DRE                                                                       |          | Optical Scan                       |         | Cost Savings |
|-----------------------|--------|---------------------------------------------------------------------------|----------|------------------------------------|---------|--------------|
|                       |        | Machines                                                                  | Cost     | Machines                           | Cost    |              |
| Williams Court 2-12c  | 1,010  | 1 Audio iVotronic(s)<br>3 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$14,280 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$4,335      |
| Wilmington Bapt 2-10c | 278    | 1 Audio iVotronic(s)<br>0 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$4,395  | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$-5,550     |
| Wilmington Isla 4-8 C | 1,349  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Windsor Forest 6-2 C  | 1,807  | 1 Audio iVotronic(s)<br>6 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$24,165 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$14,220     |
| Windsor Forest 6-5 C  | 1,284  | 1 Audio iVotronic(s)<br>4 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$17,575 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$7,630      |
| Windsor Forest 6-9 C  | 1,607  | 1 Audio iVotronic(s)<br>5 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$20,870 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$10,925     |
| Woodlawn Baptis 7-5 C | 718    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |
| Woods Of Savann 6-6 C | 684    | 1 Audio iVotronic(s)<br>2 Plain iVotronic(s)<br>1 iVotronic Print Pack(s) | \$10,985 | 1 AutoMARK(s)<br>1 M100 Scanner(s) | \$9,945 | \$1,040      |

| Precinct            | Voters  | DRE                                                                           |             | Optical Scan                         |             | Cost Savings |
|---------------------|---------|-------------------------------------------------------------------------------|-------------|--------------------------------------|-------------|--------------|
|                     |         | Machines                                                                      | Cost        | Machines                             | Cost        |              |
| Software And Extras |         | 1 iVotronic Supervisor Terminal<br>1 Software Suite (for DREs)                | \$77,410    | 1 Software Suite (no DREs)           | \$64,780    | \$12,630     |
| GRAND TOTALS        | 116,001 | 99 Audio iVotronic(s)<br>338 Plain iVotronic(s)<br>99 iVotronic Print Pack(s) | \$1,626,225 | 99 AutoMARK(s)<br>99 M100 Scanner(s) | \$1,049,335 | \$576,890    |

| Type of Product | Initial Costs | Support, Maintenance & Operations |           |           |           |           | Total Costs |
|-----------------|---------------|-----------------------------------|-----------|-----------|-----------|-----------|-------------|
|                 |               | Year 1                            | Year 2    | Year 3    | Year 4    | Year 5    |             |
| DRE             | \$1,626,225   | \$5,528                           | \$80,808  | \$83,430  | \$86,052  | \$159,905 | \$2,041,948 |
| Optical Scan    | \$1,049,335   | \$45,936                          | \$111,001 | \$113,080 | \$115,258 | \$131,593 | \$1,566,203 |

## B Cost Data and Assumptions

- 2005 per-precinct registration data from the Georgia SOS:  
<http://www.sos.state.ga.us/elections/voter%5fregistration/county%5f%5frace%5f%5fgender.pdf>
- ES&S price sheet available at the NCACC web site:  
<http://www.ncacc.org/documents/equipmentpricing-ess.pdf>

| <b>Voting Equipment and Software Licensing</b> |          |
|------------------------------------------------|----------|
| Audio-Enabled DRE                              | \$3,395  |
| Standard DRE                                   | \$3,395  |
| AutoMARK                                       | \$4,950  |
| M100 Scanner                                   | \$4,995  |
| Support Software (with DREs)                   | \$74,780 |
| Support Software (no DREs)                     | \$64,780 |

| <b>Auxillary Equipment</b>                                 |          |
|------------------------------------------------------------|----------|
| iVotronic Printer Pack (one per precinct)                  | \$1,000  |
| iVotronic Support Equipment                                | \$2,630  |
| VVPAT Paper (one roll)                                     | \$5.75   |
| DRE Battery                                                | \$163    |
| M100 Battery                                               | \$37     |
| AutoMARK Battery                                           | \$105    |
| Hardware, counties with less than 10000 registered voters  | \$3,743  |
| Hardware, counties with less than 50000 registered voters  | \$7,866  |
| Hardware, counties with less than 100000 registered voters | \$18,064 |
| Hardware, counties with more than 100000 registered voters | \$25,213 |

| <b>Maintenance Costs</b>     |          |
|------------------------------|----------|
| Support Software (with DREs) | \$14,100 |
| Support Software (no DREs)   | \$12,100 |
| DRE, Year 1                  | \$0      |
| DRE, Year 2                  | \$140    |
| DRE, Year 3                  | \$146    |
| DRE, Year 4                  | \$152    |
| DRE, Year 5                  | \$158    |
| AutoMARK, Year 1             | \$0      |
| AutoMARK, Year 2             | \$310    |
| AutoMARK, Year 3             | \$322    |
| AutoMARK, Year 4             | \$335    |
| AutoMARK, Year 5             | \$348    |
| M100, Year 1                 | \$0      |
| M100, Year 2                 | \$225    |
| M100, Year 3                 | \$234    |
| M100, Year 4                 | \$243    |
| M100, Year 5                 | \$253    |

| <b>Other Assumptions</b>                                                     |                |
|------------------------------------------------------------------------------|----------------|
| Elections per year                                                           | 2              |
| Year at which all batteries need replacing                                   | 5              |
| Maximum turnout                                                              | 70%            |
| Voters who vote on election day (not early or absentee)                      | 70% of turnout |
| Percent of extra paper ballots/rolls printed/purchased                       | 10%            |
| Registered voters per DRE                                                    | 300            |
| Registered voters per scanner                                                | 5000           |
| Average cost, optical scan ballot (based on Durham County data, 2002 – 2004) | \$0.18         |