

## Touchscreens verses Optical Scanners

Optical Scan + ballot marking device for each County cost \$10,000 - \$12,000 per precinct

- State grant will pay completely for Optical Scan and Ballot Marking Devices
- Meets state, federal law
- Meets disabled requirements
- Disabled find this most user friendly
- Cost 30-40% less to operate annually
- One optical scanner serves at least 3,000 or 1 precinct of voters in a day

Touch-screens or pushbutton DREs - would cost \$20,000-\$40,000 per precinct at least

- County will pay \$thousands or \$millions above the HAVA funding
- Not required by state or federal law
- Does not meet most disabled requirements
- Uses ballot on a reel, thermal paper, violates secrecy of vote
- 20% failure rate in live test of ballot on reel this July in California
- This type DRE had blank paper ballots at end of day in Ohio 2005 elections
- Proven to have a higher undervote rate based on North Carolina 2004 election data
- DREs cost more to own and operate, based on real study of NC counties, over 6 year period
- One DRE (\$3,000 each) serves no more than 170 people in a day with less than 5 minutes each to vote

In 2004, Guilford County NC's Board of Elections(touchscreen county) spent \$114,436 more than Wake County's BOE, (an optical scan county) yet has 170,692 less registered voters!

It isn't wise for the State/County to waste \$Millions of hard earned tax dollars.  
Nor should the State/Counties cut services to voters by consolidating precincts.

Financial analysis of meeting NC VVPB law and HAVA -- using data supplied by the State Board of Elections

<http://www.ncleg.net/Sessions/2005/FiscalNotes/Senate/PDF/SFN0223v4n1.pdf>

DREs cost 30-40% more to operate, NC study

<http://www.ncvoter.net/affordable.html>

DREs cost 40% more to operate, Florida study

<http://www.votersunite.org/info/costcomparisonextended.asp>

DREs require about 20% more poll workers, 10% more precincts

<http://www.cs.duke.edu/~justin/voting/VotingForumUU.ppt>

Ballot on reel touch-screens (Diebold) 20% failure rate, systems crash, printer jams

[http://www.votetrustusa.org/index.php?option=com\\_content&task=view&id=96&Itemid=30](http://www.votetrustusa.org/index.php?option=com_content&task=view&id=96&Itemid=30)

[http://www.ss.ca.gov/elections/voting\\_systems/vstaab\\_volume\\_test\\_report.pdf](http://www.ss.ca.gov/elections/voting_systems/vstaab_volume_test_report.pdf)

Lucas Co., Ohio -paper record was blank on the two busiest voting machines at one polling site. The

<http://toledoblade.com/apps/pbcs.dll/article?AID=/20051120/NEWS09/511200359>

Blind voters **prefer** ballot marking devices to **touch screen** machines.

<http://www.yesweekly.com/main.asp?SectionID=1&SubSectionID=1&ArticleID=603&TM=48903.21>

Verified Voting Foundation recommends optical scan and ballot marking for disabled

<http://www.verifiedvotingfoundation.org/article.php?id=6254>

DREs have higher undervote rate in NC

<http://www.cs.duke.edu/~justin/voting/totals.html>

DREs have high undervote rate and phantom votes in NM

<http://www.votersunite.org/info/newmexicophantomvotes.asp>

Dr. Rebecca Mercuri recommends optical scan at this time

<http://www.ncleg.net/committees/jointselectcomm /january72005mee /mercurinlegisl/mercurinlegisl.pdf>

**Precinct-Based Optical Scanners**

<b>Wake County</b>				<b>Durham County</b>			
Year	Expend	Reg Voters	Cost/Voter	Year	Expend	Reg Voters	Cost/Voter
'04	\$1,455,458	460,821	\$3.16	'04	\$556,923	175,322	\$3.18
'03	\$1,951,178	415,649	\$4.69	'03	\$703,031	158,916	\$4.42
'02	\$1,232,426	403,050	\$3.06	'02	\$506,287	154,950	\$3.27
'01	\$1,539,268	426,375	\$3.61	'01	\$668,777	152,324	\$4.39
'00	\$1,250,349	411,121	\$3.04	'00	\$547,576	156,131	\$3.51
'99	\$1,434,369	377,435	\$3.80	'99	\$437,795	150,984	\$2.90
6 Year Total:	\$8,863,048			6 Year Total:	\$3,420,389		
Average:	\$1,477,175		<b>\$3.56</b>	Average:	\$570,065		<b>\$3.61</b>

**Direct Record Electronic Voting Machines**

<b>Guilford County</b>				<b>Mecklenburg County</b>			
Year	Expend	Reg Voters	Cost/Voter	Year	Expend	Reg Voters	Cost/Voter
'04	\$1,569,894	290,129	\$5.41	'04	\$2,400,533	470,849	\$5.10
'03	\$1,776,383	268,368	\$6.62	'03	\$2,549,260	426,212	\$5.98
'02	\$1,298,271	276,492	\$4.70	'02	\$2,266,099	442,055	\$5.13
'01	\$1,285,192	274,357	\$4.68	'01	\$2,195,750	434,335	\$5.06
'00	\$1,181,877	279,221	\$4.23	'00	\$2,457,602	467,875	\$5.25
'99	\$1,101,522	267,650	\$4.12	'99	\$1,670,825	433,121	\$3.86
6 Year Total:	\$8,213,139			6 Year Total:	\$13,540,069		
Average:	\$1,368,857		<b>\$4.96</b>	Average:	\$2,256,678		<b>\$5.06</b>