

Andrea Gyger

From: Harvie Branscomb [harvie@media.mit.edu]
Sent: Friday, June 18, 2010 4:01 PM
To: Andrea Gyger
Cc: Judd Choate; Bernie Buescher; rollie.heath.senate@state.co.us; 'Representative Nancy Todd'; jeanne.labuda.house@state.co.us; 'Representative Ed Casso'; 'Lois Court'; 'Dickey Lee Hullinghorst'; brian@briandelgrosso.com; 'Beth McCann'; 'Joe Miklosi'; 'Carole Murray'; 'Representative Mark Waller'; rep.nikkel@gmail.com; bob.bacon.senate@state.co.us; betty.boyd.senate@state.co.us; 'dave'; bill.cadman.senate@state.co.us; 'Teak Simonton'; 'Bobbalink'; 'Joseph richy'; 'Ryan Call'
Subject: FW: draft comments to SOS

6/18/2010

To Andrea Gyger and for the public record:

(this transmission may be used to replace my previous email on the topic of Proposed Election Rules for the public hearing on June 15th)

While the bulk of the recommended changes to election rules are reasonable or beneficial, the direction of a portion of the proposed changes is unfortunate. Some changes with regard to the fundamental decision whether machines or humans will determine voter intent on ballots is harmful to the integrity and accuracy of the election. I believe that is important for this mistaken direction to be recognized and reversed- not for fear of use of technology but instead with an appropriate understanding of the variability contained within the characteristics and capabilities of the full range of eligible voters, and the natural limitations of machines in their ability to adapt to human variability and to understand human expressions without assistance.

The Rules and some of the new changes are causing the system that consists of a combination of election judges plus staff plus voting equipment -- to operate more like a machine in totality, and less like a human. These rules are running away (apparently in fear) from "hand" counting of paper ballots- assuming without good evidence that machines can interpret ballots better than humans. Machines may be more consistent and reliable in interpreting- but their interpretation may be consistently and reliably inaccurate or incomplete.

Please, please, reconsider the importance of humans in interpreting human marks on ballots- and do not require replace a human language for expression of voter intent with a machine's arbitrary language.

In detail, my discussion continues:

I am satisfied with the requirement that election officials must scan ballots physically for damaged ballots prior to using optical scanners. I do understand that this pre-scan is critical to a successful use of an optical scanner for interpreting ballots. I object to public comments suggesting that this human pre-scan of ballots should be limited or eliminated as an unnecessary extra step. The new alternative language, deprecating the importance of the initial scan would not be preferable.

I am however, deeply disturbed that officials are not required to (and perhaps are not allowed to?) sort out poorly marked ballots at the same time as they sort damaged ballots- that is ballots that may contain incorrectly interpreted undervotes on them (intended votes lost, or unintended votes gained). Any voting system will misinterpret several different classes of defective ballots and defective marks on ballots- these include: damaged ballots, ballots marked with improper medium, (these both are addressed in the new rule) and then there are those ballots mismarked by light marking, or by marks outside the target area, or by write-in without filling in the target signifying a write-in- or write-in marks for legal candidates who are not on the list of registered write-ins.

All categories of ballots that might not be accurately interpreted by a voting system should ideally be sorted for duplication before scanning. Otherwise we are depending on the accuracy and effectiveness of the device both in successfully sorting ballots, and in successfully interpreting ballots that will not be sorted out for human observation.

Since the rules now call for 100% dependence on the machine for these two functions (prior to recount or audit) , accuracy now depends on the following: 1) an extensive and successful certification test (and a presumption that the tests did include a substantial percentage of wide ranging troublesome categories-- defective marks and ballots, etc.) and 2) assurance that if the system had failed to properly interpret these poorly marked ballots that it WOULD NOT PASS certification (even after the application of any application of “substantial compliance”). We are also depending on 3) the presumption that every voting device is operating equally well as the one that was tested for certification. Note that we do not have a pre-election hardware or LAT test sufficient to check the accuracy of each device in comparison to the model that was tested for certification

Based on my observation of performance of already certified hardware and my reading of documentation of certification tests, I believe that none of these

three presumptions can be depended upon in Colorado. I am sure that certification tests are not sufficient to insure that lightly marked ballots (or ballots marked outside of the target area) will be sorted automatically by voting systems so that humans will be involved in interpreting voter intent. This is particularly so because rules do not require (and may even prevent) under vote detection from being used. Humans must be involved to supplement the machines in performing this sorting function. The current proposed rules do not allow this human involvement to take place- and may fail to allow it in the case of a recount! This is troubling.

Clerk Hillary Hall in her testimony talks about the opportunity Hart provides for central count to resolve ballots electronically. This is a useful function but- this process does NOT produce an unambiguous paper record of the post resolution vote interpretation. Such a record is required and would be used for purposes of an audit. The Hart system at best only stores such information cryptically in its audit log- a log that in Boulder County is not apparently considered a public record. It would be best if all ballots were available to be checked for voter intent- especially when the designated election official believes this is required for tabulation accuracy. All ballots that in the judgment of election officials might not be properly interpreted by machine ought to be duplicated so that there is both the original record of voter intent, and a paper record of the resolved voter intent.

The direction these rules are heading in is unfortunate and should be turned around. The Rules and the new changes are causing the system that consists of a combination of election judges/staff and voting equipment -- to operate more like a machine, and less like a human. These rules are running away from hand counting of paper ballots- assuming without good evidence that machines can interpret ballots better than humans. Please, please, reconsider the importance of humans interpreting human marks on ballots- and do not turn the language of our expression of voter intent into a machine's language. Machines can reliably and accurately add numerical interpretations of vote counts- but cannot be depended upon to accurately interpret ballots that have been marked by humans without the help of election judges taking control over special cases.

Please accept my gentle scolding for publishing documents related to this rule-making in IMAGE PDF format- a format that cannot be converted into text that can be re-used or pasted into testimony without retyping or use of OCR techniques. At this point after so much has been complained about in the past, I think it is embarrassing that the SOS is still issuing these draft documents this

cryptic way- when they are originated on a machine and could easily be published in a more accommodating format.

Comments on specific changes- Branscomb comments in blue.

Repeal of Rule 14.6.9 would revise the process for review of voter intent.

[This rule applies to a recount. In Colorado the rule for triggering a recount is at least twice as strict as most other states because of the definition of the denominator of the recount threshold using a formula that is different from almost every other state, and the trigger becomes even more strict (less likely to recount) as the vote count is diluted by other candidates votes and by undervotes. In small elections there is no chance of a recount except in case of a tie vote. Colorado recount rules (and the law they are based upon) must be changed to bring them into accordance with other states' standards.]

[*The rule originally said “Ballots shall be reviewed for voter intent.”*
Now repealed!]

[This rule change will have the effect of eliminating the requirement that voter intent be considered for every ballot in the recount of a close election. The effect will be to leave the interpretation of the voting system in use and in its extant condition as the final determining factor what the voter intended to mark on the ballot. Because other attendant rule changes have the effect of limiting selection of ballots for duplication to specific categories, not including probable failure of the voting system to recognize voter intent, this legally leaves the voting system less accurate than before the rule change- and these new rules could have the effect of preventing an ambitious and extra careful clerk from going out of the way to insure that voter intent is correctly interpreted. This is a very unfortunate and destructive change to the rules. Designated election officials must at a minimum be given the opportunity to insure that voter intent is properly judged and not be prevented from doing so. It is demonstrable that certain voting systems will incorrectly interpret ballots where light marks are interpreted as undervotes. Likewise inadvertent marks may be counted as votes when they are not producing an overvote. (None-of-the-above on the ballot would tend to solve this problem.)

Prior to a recount, when these systems are operated with undervote detection turned off- it is unlikely and may now become impossible for the combination of electromechanical system and election

judge(s) to be able to correct the error. But even in a recount, the voting system may not sort out ballots with stray marks that should not have been counted as votes. Meanwhile increasing numbers of ballots are processed by central count systems where the voter is not present. Likewise it is getting unpopular to use undervote detection even when the voter is present at a precinct polling place- and rules do not appear to call for under vote detection except in case of recount.

A far more accurate system would result from ALWAYS using undervote detection and using “none of the above” or similar choices on the ballot to reduce the frequency of deliberate undervoting. I am afraid the current rule might be interpreted to mean that undervote detection may not be turned on- because this has the effect of sorting ballots for undervotes and that category is not called out in this rule. Also voter intent involving outside the target marks are not humanely handled for interpretation of voter intent under these rules.

Please do not remove the language from 14.6.9. thereby giving the DEO a chance to produce a correct interpretation of every ballot in a close election.]

Amendments to Rule 27.4.2 would revise central count optical scan procedures. Specifically, the amendments would require an initial review of every ballot.

Damaged

ballots would be noted as such, duplicated, and kept separate from the standard run ballots

for the precinct. Additionally, the amendments clarify that a voter’s intent shall be reviewed

for every ballot that requires duplication.

[Initial review is a wise procedure to avoid having problematic ballots read by the scanner- but it does create an uneven treatment of ballots- as a voter I might be inclined to pour coke on my ballot to make sure it is actually read by hand and duplicated- although the result would be another ballot that has been marked by the resolution board, rather than simply a hand count of my ballot. (In Boulder, in fact, it may be the case that the result may be that human eyes do reconcile my ballot.) In a write-in race- I might find it to be an advantage to have the resolution board copy my ballot to insure that it will be read correctly by the machine- but it would be better if every ballot had a similar chance to be treated in this manner without

requiring satisfaction of either damage to the ballot or use of improper medium.]

[The new language says:” A voter’s intent shall be reviewed for every ballot that requires duplication.” This means that with the removal of the language in 14.6.9, now only ballots pre-selected for duplication are checked for voter intent- but meanwhile every ballot is checked for “damage” that includes foreign material and media other than that called for in the instructions. Voter intent should be checked for ANY mark that is less than 100% sure to be interpreted correctly by the voting system]

Amendments to Rule 27.6 would establish that every duplicated ballot shall be subject to the process for determining voter intent and that such ballots shall be counted with all other ballots, however, duplicated ballots must be maintained separately for greater accessibility.

[what it says is this: Every duplicated ballot shall be subject to the process for determining voter intent outlined in Rule 27.7- this creates two classes of ballots- those that are duplicated and those that are not- for purposes of determining voter intent- there is nothing in the criteria for damaged ballot that requires that poorly marked ballots will have the advantage of being duplicated- although ballots considered blank by the scanner will be looked at for possible duplication- this leaves out ballots with some light marks incorrectly interpreted as undervotes- since the scanner is not required to reject on under vote- and stray marks that are incorrectly interpreted as a vote but not an overvote. These ballots with poor marks on them will not be looked at for voter intent under these new rules until a recount- and then only some of them.]

[Basically what we are doing is providing for a hand count for duplicated ballots only- and letting the machine resolve all other situations, meanwhile the current rules for voter intent cause the election judges to act like machines- instead of actually deciding voter intent in a human manner. The restriction on human interpretation of voter intent is enforced by the existing and rather arbitrary consistency rule- all marks must be voted in the same

manner, if not correctly marked, for any of them to count. If even one mark is done “correctly” most or all other evidence of voter intent is apparently disregarded. I think this is absolutely unacceptable- and makes the absurd assumption that humans will mark ballots like machines would- consistently. This previously adopted rule is a horrible way to treat voters- in their absence- but it is convenient for election judges. It is not new in this rulemaking- it was done in a previous year - but a more human interpretation of voter intent should be allowed if not required instead.]

Amendments to Rule 27.7.4.3 would create a consistent standard for interpreting voter intent of a write-in vote by requiring that the target area be marked in the appropriate space in order for the vote to be counted.

[the above description is not correctly describing the rule change- the new language removes the following text: “and during the initial count for hand counted paper ballots pursuant to section 1-7-305 CRS” This change has the effect that the rule that allows a write-in to be counted even if the target for write –in is not marked only applies now to the recount situation. This is also convenient for machine counting, but bad for vote tabulation accuracy. The write-in ballots should be sorted with the damaged ballots and counted by humans even in the first count, even if the machine’s target has not been filled in, and in addition, write-in votes for certified and listed candidates should also be counted whether or not the target for the certified candidate has been marked if this does not produce an over vote.]

27.6 (d) The duplicate ballot shall be placed with all other ballots to be counted. THE
6 DUPLICATED BALLOTS SHALL BE COUNTED IN THE SAME MANNER AS ALL OTHER
7 BALLOTS TO BE COUNTED. ALL DUPLICATED BALLOTS SHALL BE KEPT SEPARATE
8 FROM THE STANDARD RUN BALLOTS SO THAT THE DUPLICATED BALLOTS ARE
9 EASILY AUDITABLE.

[It is important for batch integrity to be maintained for ballots before and after duplicated ballots are created- so at a minimum a marking system must be employed to allow tracking of each ballot back to its origin by batch of ballots. Ballot batches used for audit should be based upon initial batches of ballots first logged in, and ballots that are duplicated must be at least equally likely included in batches chosen for audit. It is unclear what the proposed language in 27.6 (d) above means in terms of auditing- since in many counties the number

of ballots to be audited consists of only one batch, if all duplicated ballots are in “one batch”- they will either all be audited, or more likely none of them.

The language says the duplicated ballots “shall be kept separate”. Batch accounting must be consistent from the first appearance of the ballot (and accounted by a dual party team) to the final tabulation for recount or audit- and any additions or deletions due to the rule for handling duplicated ballots must be well accounted for. Each original batch count must be reconcilable, using general accounting procedures, to reflect ballots removed from the batch and the tracking and final destination of each removed ballot.]

- End of comments directly on the proposed changes- what follows are further comments on the rules for “voter intent”.

Here are relevant portions of the existing rules related to “voter intent”

27.4.2.(b)(2) Official ballots shall be processed through the optical scanner, with sorted overvotes, blank ballots, and write-in ballots viewed and resolved by the resolution board. Only ballots sorted by the optical scan equipment shall be subject to review by the resolution board. A voter’s intent shall not be reviewed or determined upon initial counting of ballots unless such ballot is sorted by the optical scan equipment. If there are no legally qualified write-in candidates, the write-in sort option shall not be utilized. The number of each duplicated ballot shall be entered on the resolution board log sheet.

Here we see humans deliberately prevented from interpreting ballots simply because the machine deems it unnecessary. Evidence from experience with existing equipment, and dilution of testing board recommendations by re-evaluation of “substantial compliance” and failure of systems to be checked pre-election for consistency with the certified device all suggest that the voting device cannot be depended on to sort all the ballots that require human oversight. Furthermore, write-ins may be for listed candidates- and these should be considered evidence for voter intent.

(d) Recount Procedures for Optical Scan

(1) Optical scan equipment must be set to consistent sensitivity standards for each system type, must be tested prior to the recount, and shall be programmed to sort undervotes for the individual race(s) or ballot measure(s) being recounted.

(2) Recounts will include a visual inspection of all ballots cast for write-in candidates in the contested race(s) to determine voter intent.

Here we see for recounts only that under vote detection is to be done and all write-in votes will be visually inspected. This is as it should be- but because our Colorado threshold for recount is so severe, we cannot depend on the recount trigger to protect the accuracy of the first count of the election. there may be far more uncounted light marks, write-ins, and outside the target expressions of voter intent in total than the difference in vote count that triggers a recount. Note that Colorado election officials have no way to test that optical scan equipment is “set to consistent sensitivity standards”. Our pre-recount test is insufficient to give us confidence that a machine recount will have sufficient accuracy to satisfy the needs of a close election.

27.7 Determination of Voter Intent

27.7.1 If a voter uses a consistent alternate ballot marking method that deviates from the method specified by the voting instructions (such as circling or placing a check mark behind a candidate’s name or ballot response) and does not place an “X”, check or other appropriate mark in the target area(s), the voter will be considered to have voted for the appropriate candidates and or ballot responses and the ballot shall be duplicated; except that, If a voter marks any of his/her choices by placing an “X”, check or other appropriate mark in any target area on the voter’s ballot, only those choices where the target area has been marked shall be counted.

This is an untenable standard for expression and detection of voter intent- it is one that would have been created by a machine- if a machine were designing the voting system. How humans came to believe that this is a reasonable standard for measuring voter intent is mysterious to say the least. This means that a voter who simply crosses out one target area improperly marked and writes instead “I vote for George Washington”- will not succeed in voting. If voters knew that this rule is in place, I would suggest that they would speak out in disgusted objection.

27.7.2 A ballot that has a mark correctly in the target area that partially extends into another target area shall be counted as a vote for the candidate or ballot response so marked.

27.7.3 When resolving an over-voted race, marks indicating the voter's intent shall include, but not be limited to, circling the candidate's name and strike-outs or corrections of choices.

27.7.4 Write-in votes

27.7.4.1 If a voter designates a vote for a named candidate on the ballot and writes in the name of the same candidate in the write-in area, the vote shall be counted.

Note this rule for voter intent is appropriate and will be honored during recount, This rule does not cover the case where the voter undervotes and writes in the name of a listed candidate in the write-in area. Such a vote should also be counted- but will not except in case of a recount under proposed rules.

27.7.4.2 If a voter designates a named candidate on the ballot and writes in the name of a different candidate in the write-in area, it shall be considered an overvote for that office if the number of chosen candidates exceeds the number permitted to be voted for in that office and no vote shall be counted.

Note that the handling of this case will differ between initial count and recount- because of the handling of the mark in the target signifying a write-in. If the target is not marked, but the write in candidate name appears, then in the initial count the vote for the listed candidate will count. In a recount, the write-in name would be visually inspected and the overvote presumably detected- although the following 27.7.4.3 does not help make that clear- since the counting of the write-in occurs only when the number of candidates chosen does not exceed the number permitted.

27.7.4.3 During any recount of votes and during the initial count for hand-counted paper ballots pursuant to section 1-7-305, C.R.S., the written name of a write-in candidate in the write-in space shall be counted whether or not the target area designating the selection of a write-in candidate has been marked, provided that the number of candidates chosen does not exceed the number permitted in that office

Harvie Branscomb
Eagle County