

Dear Transparency Helpers,

We are writing to thank you once again for your prodigious help scanning the ballots from the November 2020 election. With your help, we scanned 279,419 pages representing nearly 70,000 voters. We achieved our primary goal: Making the images available to anyone who might want to see them, either to satisfy themselves on the counts or for academic studies.

The exciting news is that Wes and David McCallie have, for the first time in our 14 year history, achieved a secondary goal of developing an open-source/non-proprietary software method of counting from the images the individual races and comparing the results with the entirety of the county's results. The first run of this software was done on a single county-wide race (2nd district supervisor) and reported by Wes shortly after the election certification in December. The results ultimately were within 2 votes of those reported out of 11,986 votes cast. They continued to work on this project to count all of the races from the November Election. The ultimate outcome has been a determination that we found no reason to disagree with the counts published in the official Final Canvas, [which you can see by clicking here](#).

You can view our report [on our website](#).

Thank you again for the time you so generously made available. We look forward to working with you this November and in future elections.

If you have questions, please contact Wes at wesleyrishel@gmail.com.

While the rest of this letter may fall into the category of "too long; didn't read", we thought you might be interested in how we use the fruits of your work, including how to interpret our report.

Here an example, one of the contests in the report.

Contest	Choice	Elec Votes	Notes	Our Low	Our High	Est. Elec Ballots Cast	Our Number of Images
ARCATA CITY COUNCILMEMBER	STACY ATKINS-SALAZAR	3,717	<>	3,702	3,909		
ARCATA CITY COUNCILMEMBER	EMILY GRACE GOLDSTEIN	3,342	<>	3,329	3,536		
ARCATA CITY COUNCILMEMBER	SARAH SCHAEFER	3,187	<>	3,176	3,383		
ARCATA CITY COUNCILMEMBER	MICHAEL WINKLER	2,717		2,703	2,910		
ARCATA CITY COUNCILMEMBER	CAMILLA ZAPATA	2,369		2,357	2,564		
ARCATA CITY COUNCILMEMBER	PAUL PITINO	2,098		2,090	2,297		
ARCATA CITY COUNCILMEMBER	KIMBERLEY WHITE	2,000		1,983	2,190		
ARCATA CITY COUNCILMEMBER	COLLIN YEO	1,482		1,477	1,684		
ARCATA CITY COUNCILMEMBER	NICK MATTHEWS	1,281		1,274	1,481		
ARCATA CITY COUNCILMEMBER	ORYAN PETERSON-JONES	609		608	815		
ARCATA CITY COUNCILMEMBER	R/M: 45%; Totals:	22,802		22,706	22,918	10,010	10,010

One of the most reassuring points here is in the right two columns. The number of ballots we scanned is the same as those that Elections scanned. This means that all that bookkeeping you did to keep track of batches paid off and we didn't miss any batches. In the full report, you will see a few cases where scanning errors caused us to miss a few ballots. We will talk more about that below.

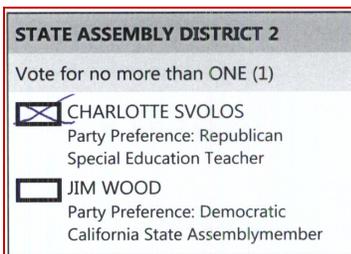
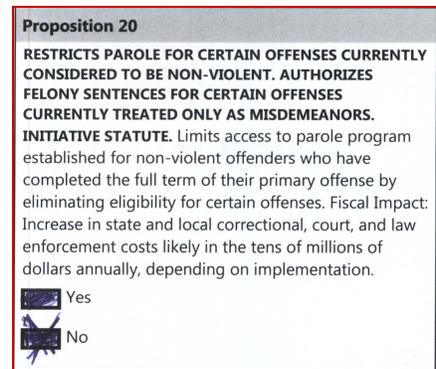
In our report the choices for the contest are listed in the order of the votes they received. In the Notes column, there are two symbols. The "<" indicates who was the winner in the official results. The ">" for a row indicates who came out the winner in our count. Because the "<" and ">" are in the same row for every choice indicates that we found the same winner as the official result.

The blue columns represent information from the Canvas and the green columns represent our data.

You may be wondering why we give an exact count for the Canvas but we only give a range of possible counts for our own data. The issue arises because some ballots need to be examined by a person to interpret the voter's intent.

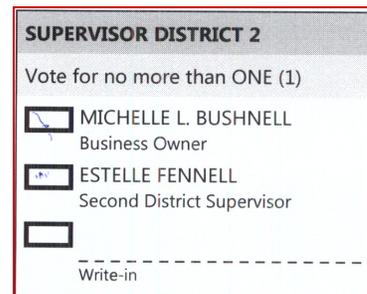
For example, a ballot that has too many squares filled in looks to the computer like an overvote, but often it is a correction made by the voter. Among the 1,315,864 contests on all the ballots, we scanned about 8,100 that appeared to be overvoted. As the Elections personnel processed the ballots, they found about 1250 to truly be overvotes and the rest were corrections.

Likewise, the computer can only go so far in processing write-in votes. Of about 280,000 ballot pages we scanned, about 92,000 of those marks were write-ins. This means that an Elections person had to examine almost 1/3 of all scanned ballots to determine whose name was written in and was that name actually a registered write-in candidate.



There is yet another reason why people in the Elections department have to examine some ballots. Some voters don't follow directions well. For example, they don't fully fill in the boxes. It would be easy for the computer to decide that the vote on the left was for Svolos, but there is a complicating factor. Sometimes, voters' very light marks don't really indicate their intention to vote. Currently a computer

program couldn't look at the ballot on the right and determine whether it represented no vote, a vote for Bushnell, or an overvote.



In the official election counting process, several people work full time for the weeks when the elections system is scanning ballots, deciding how to handle special cases such as these.

We at the Humboldt Election Transparency Project have to think carefully about asking volunteers to put in a comparable amount of time. To review all the ballots for a single county-wide contest would probably take more than 38 hours of our volunteers' time.

Before asking people to put in that level of effort, we have looked closely at our mission of making Humboldt's elections as transparent as possible. We translate that into two goals:

- Making the images available
- Alerting elections officials and the public to any contest that might warrant further examination.

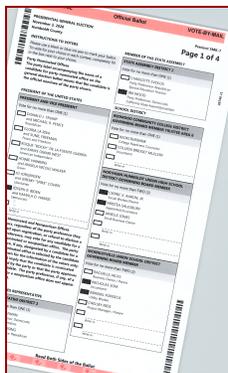
In particular, we have never thought of our own work as providing a full independent audit of election results.

Through your substantial efforts we achieved the first goal within a few days of our scanning the last ballots.

For us to be effective in our second goal, identifying issues worth looking into, we have worked out a way to go forward without manually examining ballots.

Where any of the issues we have described would require manual examination, we actually count that ballot twice, once as if the voter intended to make a mark and again if as if they did not. In the case of overvotes, we count it once as if it is a correction and once as if it is truly an overvote.

So, for example, if you look at the row for Stacy Atkins-Salazar on page 1, you see that the official count was 3,717 votes and our count was somewhere between 3,702 and 3,909 votes. So there were 207 ballots that we would have had to examined manually to get an exact count.



Because the official vote for Stacy was within our range, we don't have any reason to question the official count. In particular, the winning margin was more than twice the range of uncertainty in our count, so even if we were off by a few, that wouldn't change the results.

This report also has revealed some ways to improve our scanning procedures. There was one completely missing image, side 4 of a 3A--1 ballot. In addition, there were about 93 other images that were scanned crooked such as the one shown on the left. Next time we will revise the procedure for recovering from a jam or misfeed so that these don't slip through.

Finally, there were 2,342 images where the imprint actually ran down the middle of the page rather than the left margin. As you can see from the image on the right, the imprint, unfortunately, landed inside the boxes that a voter would fill in. We believe this happened during cleaning or when pulling paper out after a jam. Now that we are aware of the problem, we will work with you to develop a procedure to double-check during those procedures.

Because the imprinting was very light, we found that our counting program mostly got the correct result. However, we are aware that we falsely reported a vote for at least 14 of the 2,342 images. Where the margins were large, we don't think this impacted the outcome. However, for the Humboldt Community Services District Director, the margin was close. Therefore, we can't opine on this contest without manually examining those ballots. This is not a case where we disagree with the official result. We just don't know with any certainty whether we agree.

However, we should not dwell overly on the few lessons learned.

With your help we were processed the largest number of ballot pages that Humboldt County has ever seen with very high accuracy. We look forward to working with you again in future elections.

Respectfully yours,

Kevin Collins
Wes Rishel
The Humboldt Election Transparency Project

