

LAURA PRESSLEY	§	IN THE DISTRICT COURT
Contestant	§	
	§	
v.	§	OF TRAVIS COUNTY, TEXAS
	§	
GREGORIO “GREG” CASAR	§	
Contestee	§	201 st JUDICIAL DISTRICT

**DECLARATION IN LIEU OF VERIFICATION PURSUANT TO TEXAS CIVIL
PRACTICE AND REMEDIES CODE §132.001**

“Jeffrey Jacobson, Ph.D. is a qualified expert witness for this case.

“My training began with a bachelors of Computer Science and four years working at the computer security division of Honeywell. I went on to earn a Ph.D. in Information Science at the prestigious School of Information Science at the University of Pittsburgh. The curriculum there centers on the nature and use of information in the computer, the human mind, and in human/computer systems. I had a special concentration in computer graphics and education. During and after my doctoral studies, I published over 100 items ranging from peer-reviewed papers in scholarly journals, two books, and a host of conference papers. I have given nearly 200 presentations, lectures, and demonstrations, most recently at Harvard and Tufts Universities. My work is cited in the scientific literature over 700 times, including peer-reviewed journals. See attached CV¹ and summary resume.²

“Several Mobile Ballot Boxes were *corrupt* and rejected by the system.

“According to the Tally Audit log³ turned over by Travis County in this case, the Hart Intercivic Tally system rejected Mobile Ballot Boxes (MBB) as being corrupt as evidenced by the errors of “Invalid/Corrupt MBB” on nine separate occasions during the count of the December runoff election. It is not known whether this resulted from nine individual MBBs or repeated read attempts for a smaller number of MBBs—it could have been just one MBB with nine attempted reads.

“In either case, properly created MBB(s) may have contained legitimate votes, but some event made it/them unreadable. The votes would then have to be retrieved from the internal memory of the subsystems that originally recorded the MBBs, or in the backup data stored on the SERVO subsystem.⁴ In the documents reviewed for this expert report there is no evidence of an effort to

¹ Jeffrey Jacobson, Ph.D. CV, Attachment 1

² Jeffrey Jacobson, Ph.D. Resume, Attachment 2

³ Hart Voting System Tally Audit Log produced by Travis County, Attachment 3. The Tally Audit log is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

⁴ Hart Voting System Tally Operations Manual produced by Travis County, Attachment 4. The Tally

determine whether votes were lost in this way, and if so, to retrieve them.

“Alternatively, an adversary may “Introduce corrupt MBBs into the legitimate flow of MBBs from the precincts back to Election Central” (California report, page 48, paragraph 1).⁵ This could damage the credibility of the vote counting process.

“Also, Tally log files (Attachment 3) show each attempted read of a corrupt MBB being at or near the beginning of a group of MBBs being read. What that could mean is unclear, but it seems very unlikely and warrants study, beginning with an examination of the MBBs, themselves.

“A Cast Vote Record (CVR) is NOT a Ballot Image

“The California report (Attachment 5, page 60, paragraph two) clearly states that the CVR is a data structure. A data structure is a table or list of information, in this case, a listing of the votes from one ballot. By contrast, an image file is a computer file which describes an image as a grid of pixels, with color and other information for each pixel stored individually. A data structure is not an image file, so the CVR cannot be a ballot image.

“Hart's own Ballot Now documentation provided to Travis County⁶ states that the eScan subsystem scans each paper ballot to create an exact digital image of the ballot cast. The eScan creates and stores a ballot image (bitmap, .bmp file) and then reads the data to make a CVR (Ballot Now manual, Attachment 6, page 24 and 259-260). In this way, the manual clearly refers to the CVR (a data structure) and the ballot image (bitmap, .bmp file) as two different things.

“Finally, the California report (Attachment 5) also states that a CVR is not ever more than 100 bytes long (p 58, paragraph nine), which is more than enough room to hold a list of votes, at one byte per vote. But no image file format could contain more than a dozen or so letters in 100 bytes; it certainly could not hold an entire ballot image in a bitmap format.

“In addition, according to the Federal Election Commission’s 1990 Performance and Testing Standard for Punchcard, Marksense, and Direct Recording Electronic Voting Systems (DRE)⁷ (p 76, paragraph 5):

‘To attain a measure of integrity over the process, DRE systems must also maintain images of each ballot that is cast, such that records of individual ballots are maintained by a subsystem independent and distinct from the main vote detection, diagnostic, processing and reporting path.’

Manual is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

⁵ **California Report:** Inguva, S., Rescorla, E., Shacham, H., & Wallach, D. S., 2007, *Source code review of the Hart InterCivic voting system*, University of California, Berkeley under contract to the California Secretary of State. <https://www.sos.ca.gov/voting-systems/oversight/ttbr/Hart-source-public.pdf>, Attachment 5. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

⁶ Hart Voting System Ballot Now Manual produced by Travis County, Attachment 6. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

⁷ Election Commission’s 1990 Performance and Testing Standard for Punchcard, Marksense, and Direct Recording Electronic Voting Systems, Attachment 7. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

“To the extent the FEC discusses, what would later be known as “cast vote records,” the FEC distinguishes it from ballot images, saying there should be two pathways for vote records in DRE’s: a) images of ballots cast capability, and b) vote detection, processing and reporting path for vote data. The CVR is a record that contains vote results and is used in transporting them to the Tally system (Attachment 4.) A ballot image is an image file, which the Tally system does not process or use in any way.

“The Federal Elections Commission’s 2002 Voting System’s Standards, Volume 1, Performance Standards⁸ uphold these 1990 requirements for DRE’s to maintain two pathways independent from each other so that vote data is stored and ballot images are preserved (p 31, Section 2.2.4.2, page 52, 3.2.1b(2), page 127, 9.5.1.2.a).

Possible Anomalies in the Outcome Vote Data From the Runoff

“Dr. Pressley has maintained that the ratio of votes for Pressley vs. votes for Casar was nearly identical in both the runoff and the general election, when looking at vote totals from the top nine precincts comprising 80% of the vote in both elections⁹. I have not had time to conduct my own analysis of the data, but I have seen her per-precinct summary data of this and the previous 10 elections in the area where runoff elections were held¹⁰. Vote data listed there also appears to be limited to the top vote getting precincts comprising 80%; this cutoff is in place for a reason.

“Treating the Pressley/Casar vote ratio for each precinct as a data point, the correlation between the general and runoff elections for the top vote getting precincts is over 97% among the top vote getting precincts. The reason for excluding the precincts with smaller vote totals (the bottom 20%) is that the correlation test treats all precincts with equal weight, and the votes in the smallest precincts would have an outsized effect. This extremely high correlation is unusual; one would expect more variation given the different voters and conditions in the runoff vs the general election. Dr. Pressley asserts that it is the highest among all previous runoffs and is far higher than most⁹. Similarly, the ratio of Pressley's votes to Casar's votes is 35.1% in both the general and the runoff.

“Why ignore the vote totals for the other candidates in the general election? Because it was in the Pressley/Casar vote ratio where the anomaly was found, that the ratios are the same in the general and the runoff. We are not ignoring the other vote totals, they are simply not the point. When analyzing data, one looks for patterns (correlations) then investigates the patterns found.

“The patterns Dr. Pressley found in the vote data are suspicious enough to warrant further analysis and testing, especially in light of the numerous election irregularities and given the security weaknesses in the Hart InterCivic voting system.

⁸ Elections Commission’s 2002 Voting System’s Standards, Volume 1, Performance Standards, Attachment 8. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

⁹ Comparison of Results of All Council Candidates, Attachment 9. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

¹⁰ MSJ--Exhibit B, Attachment.pdf, Attachment 10. This is material that is reasonably relied upon by experts in my field to form the opinions and statements in this declaration.

“My name is **Jeffrey Jacobson**. My date of birth is June 18, 1960, my address is 333 Lamartine St., Boston, MA 02130, United States of America. I declare under penalty of perjury, are within my that the statements above are within my personal knowledge true and correct.”

Executed in Santa Clara County, State of California, on May 18, 2015.

A handwritten signature in black ink that reads "Jeffrey Jacobson". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Jeffrey Jacobson, Ph.D.
Declarant