

Request for "Cast Vote Records" (CVR Data) for a Statistical Analysis

The purpose of the statistical analysis is to find statistical evidence consistent with mail-in ballot stuffing or digital manipulation of election data that is unknown by the County Clerk's office, and unknowable by using the Clerk's standard methods for auditing and testing election equipment or software.

To discover this kind of statistical evidence requires full context, meaning data from all the ballots, for all the contests, with other variables related to the election in the presence of each other (simultaneously). It also requires sophisticated statistical methods, tests, probability calculations, and visualizations with appropriate statistical boundaries. It does *not* require any personal information of any voter.

An explanation of the request for an export of the County's "Cast Vote Records", also known as CVR data or CVRs, follows.

The CVRs for the County's June 2022 Primary election, for all contests, as recorded by the central election tabulation software, is requested in a format suitable for statistical analysis.

A CVR refers to a single ballot stored in the election system. The term CVR is often used interchangeably for three things: 1) a ballot image, 2) a text-document showing how ovals were read and translated by software for a single ballot, or 3) a single row-type record of contests, choices, and other variables. It is the third meaning that is requested, for all ballots, i.e., rows of CVR data equal to the total number of ballots that were cast in this election for all contests, similar to a spreadsheet.

It is acknowledged that results of the election are available for download from the county's website in 3 documents ("Summary", "By Precinct", and "SOVC" or "Statement of Votes Cast"). However, those files are unsuitable for statistical analysis because they are in a pdf file type, and not raw data. Pdf documents available to the public from the County are actually produced from the CVR data by aggregating and summarizing it in a report.

CVRs have a "Common Data Format Specification¹" so they are interoperable with different types and vendors of election equipment/software, to easily transfer and aggregate at a state level. Even though there is a master database with hundreds of variables described in that specification, we are *not* requesting a data dump of the master CVR database.

¹ See the National Institute of Standards and Technology document, Mar 2020: <https://pages.nist.gov/CastVoteRecords/>

The following variable-types are specifically requested (as columns) with rows in the same sequential order as each ballot is processed/recorded:

- CVR unique ID
- DateTime created
- File name of original Ballot Image
- Batch ID
- Record ID within a Batch
- Tabulator ID, Name, and Description
- Polling Place or Tabulator Location
- Ballot Style or Type
- Precinct ID
- Method of How Voted or Reporting Group (Mail-In, In-Person, etc)
- DateTime if Adjudicated
- File name of Adjudicated Ballot Image
- Each Contest and Ballot Measure (with Candidate Name and Party if applicable)
- Exceptions, Under, Over, or Blank votes
- Each final vote should be recorded in each row, perhaps as a Candidate Name (with Party if applicable), such as (Rep)NameA / (Dem)NameB / Blank, or as 1s and 0s, or as other choices such as Yes/No, or For/Against.

No personal information such as Voter ID, name, address, age, etc., is contained in CVR data (refer to the specification) and *personal information is NOT being requested*. The CVR data will *NOT* be combined with other data to try to ascertain who voted for who. If there are very small precincts where 100% of votes went to a particular candidate, the data can be shielded so that someone familiar with the residents of that very small precinct cannot learn who voted for who. For example, it is common practice at the Utah State Dept of Education to shield results for groups with 10 or fewer students, to avoid violating the Family Educational Rights and Privacy Act (FERPA), to not expose children's test score data when comparing small grades or school districts. Another example is that California actually redacts the names of small precincts by recoding the Precinct ID or name with three asterisks, ie, ***. This is acceptable. The number of ballots in such redacted precincts would be very small such as 10 to 25.

The CVR export should be delivered as an electronic file(s) containing raw data, similar to a spreadsheet, suitable for statistical analysis. The file type can be a text file with comma-delimited data and a ".csv" file extension. Or it could be an Excel file with a ".xlsx" file extension. Or it could be in json or xml format with a ".json" or ".xml" file extension. If the export data is in json format, about 16 or more files will be needed in addition to the export file, all ending in a name such as '...manifest.json'

The delivery method of the export file(s) may be through encrypted secure file transfer (such as a drop box) or by other arrangements (such as a thumb drive).

If the data is in multiple files, provide the individual files, no need to combine them into a single file, except to zip them all together in a folder. It is desired that a sha-256 hash

(check sum file) be provided for the zipped folder too, if possible, for traceability and to verify that all the files arrived correctly.

Other Notes relevant to ES&S vendors, from an internet search in an effort to be helpful:

- ES&S does not provide a single procedure to export all the CVR data. Instead, two procedures are required:
 - Tools > Export Cast Vote Record
 - Produce Module > Ballots - Table View > set filter to “all” > Export (It may only allow 20K records at a time to be exported and may require several exports).
- The second procedure or its results might be referred to as "Ballot Review Record Report", "Ballot Manifest Report", "Ballot Log", or "Tabulator Batch Report".
- See ES&S Electionware Volume V Results User’s Guide, p 37 for instructions. Select choices for ALL records.

• Sample Cast Vote Record Report (more columns continue to the right):

Cast Vote Record	Precinct	Ballot Style	REP U.S. Senate (54)	DEM U.S. Senate (57)	REP U.S. Congress District 1 (60)	REP Attorney General (66)	REP Governor (84)	DEM Governor (87)	REP Lieutenant Governor (88)
113	Marianna 3	DEM Marianna 3		Dan Whitfield (CND0005)				James "Rus" Russell, III (CND0022)	
114	Marianna 2	Marianna 2							
115	Haynes	DEM Haynes		Natalie James (CND0007)				Chris Jones (CND0024)	
116	Marianna 3	DEM Marianna 3		Dan Whitfield (CND0005)				Chris Jones (CND0024)	

• Sample Ballot Review Record Report (more columns continue to the right):

Ballots
 Lee 220524 Primary
 Lee, Arkansas
 June 22, 2022

Cast Vote Record	Batch	Ballot Status	Original Ballot Exception	Remaining Ballot Exception	Write-in Type	Results Report	Ballot Style	Reporting Group	Tabulator CVR
1713	Election Day CC - 1	Not Reviewed	Undervote			N	DEM Haynes	Election Day	cc0c300e04b50d9f
1714	Election Day CC - 1	Not Reviewed				N	DEM Marianna 2	Election Day	cc2e5e6e9f0da934
1715	Election Day CC - 1	Not Reviewed				N	DEM Marianna 3	Election Day	cce792efbae3698c