ELECTION INTEGRITY COMMISSION
2016 ANNUAL REPORT
January 2017

ELECTION INTEGRITY COMMISSION MISSION STATEMENT
To provide independent oversight of the County election process and to review and make recommendations to the Board regarding election information technology systems as well as technical and procedural matters.

I. INTRODUCTION

The Pima County Election Integrity Commission (EIC) was created on July 1, 2008 by Board of Supervisors' direction. The ten voting members are appointed in the following manner: One member appointed by each of the five sitting Board of Supervisors members for a total of five; one member appointed by the County Administrator; one member appointed by each political party with party recognition in Pima County for a total of four. In addition to the ten voting members, one non-voting ex officio staff member is appointed by Pima County.

The Election Integrity Commission posts schedules, agendas and minutes for all meetings on its website: http://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=36062

The Election Integrity Commission Annual report is a publication filed at the close of the calendar year. It is intended to keep Commission stakeholders, County executives/officials, and representatives apprised of important activities, election updates and other relevant information for those unable to attend monthly EIC meetings. The Annual Report will be distributed to the Board of Supervisors and Political Party officials via email, and posted on the EIC website.

II. EIC COMMISSIONERS

Commissioners are appointed to a term of two years from the date ratified by the Board of Supervisors.

Name	Office	District/Jurisdiction	Term Expiration
Bill Beard		1	November 17, 2018
Jeffrey Rogers		2	January 6, 2017
Tom Ryan	Chair	3	July 31, 2018
Beth Borozan		4	December 4, 2016
Barbara Tellman	Vice Chair	5	September 30, 2018
Arnold B. Urken		County Administrator	July 31, 2018
Brian Bickel		Democratic Party	May 7, 2017
Mary DeCamp		Green Party	July 4, 2018 (*)
Christopher D. Cole		Libertarian Party	May 14, 2017
Karen Schutte		Republican Party	December 7, 2018
Brad Nelson		Ex-Officio	

(*) Commissioner Mary DeCamp filled Commissioner Matt Smith's seat on the EIC July 4, 2016. Matt's term had expired on February 28, 2016 and was vacant for several months.

Per the EIC Bylaws, officers were elected at the January meeting, resulting in the re-election of Commissioner Tom Ryan, as Chairman, and Commissioner Barbara Tellman, as Vice-Chair

At its December 16 meeting – Nicole Fyffe, Executive Assistant to Mr. Huckelberry replaced Ellen Wheeler on the EIC as the Commission's liaison to the County Administrator.

III. 2016 MEETING SCHEDULE
Meetings were held at the Herbert K. Abrams Building, 6550 South Country Club Road in Tucson on the following dates:
- Friday, January 15, 2016
- Friday, February 19, 2016
- Friday, March 18, 2016
- Friday, April 15, 2016
- Friday, June 10, 2016
- Friday, July 15, 2016
- Friday, August 19, 2016
- Friday, September 16, 2016
- Friday, October 21, 2016
- Friday, November 18, 2016
- Friday, December 16, 2016

IV. 2016 ELECTIONS CONDUCTED BY PIMA COUNTY

There were four elections held in 2016:
- March 22, 2016 Presidential Preference Election
- May 17, 2016 Special Election State Prop 123 and Prop 124
- August 30, 2016 Primary Election
- November 8, General Election

In all cases, the elections ran smoothly. There were sufficient polling places and very few problems. Democratic and Republican Party observers observed polling places, ballot processing, signature verification, receiving stations, and tabulation. Both parties participated in the Secretary of State and Party Logic and Accuracy Tests. All four recognized parties participated in the hand counts which came out well below the allowed margin of error. Reports from observers were almost uniformly positive.

Commission members received complete reports on each election and discussed a number of issues raised by party observers. The Democratic and Republican parties had observers at approximately 30% of the polling places for at least part of General Election Day. In all cases the problems reported were minor and mostly attributable to mistakes made by poll workers. Most problems were identified early in the day and corrected within a few hours. EI members

were assured that workers who made errors such as providing bad information would be informed of their errors and in some cases not hired again.

Experiments were run on saving and using images, with mixed results. Due to excessive time spent on saving images each night before closing, processes were altered to reduce the time while preserving security. The final approach in the General Election resulted in a more efficient method of saving images. In no cases were the images actually used. An attempt to use them for more efficient processing of write-in ballots did not prove to be more efficient than the traditional method.

Pima County's New Central Count System

The Pima County Elections Department replaced its aging election tabulation system with equipment and software from the vendor Election Systems and Software (ES&S) version EVS 5.2.0.0. Pima started with four central count ballot scanners (DS850 units) and added two more in March, and eliminated all of the polling-place scanners. Voters at polling places now drop their ballots into a metal box and all precinct-cast ballots are counted at central count on Election Night.

The new system was used for the first time in the November 2015 election that included countywide, municipal and school district questions. A total of 190,173 ballots were cast with 157,797 as early ballots (83%). In the spirit of increasing public confidence in the system, members of the political parties conducted a hand count audit of randomly selected contests and precincts that included extending the audit of contests beyond the suggested minimum in the procedures manual. This was brought to the Board of Supervisors and agreed upon after the AG Office and Secretary of State encouraged the EIC to do so. The procedures manual is a minimum not a maximum for the hand count. Audit results agreed with system results.

Although the new scanners are substantially faster and more reliable than their predecessors, problems arose in a couple of areas. First, the ballot feeding mechanism failed, causing a number of ballots to be crumpled. Technicians from ES&S arrived on site and were able to repair the machines by upgrading drive belts. Second, the process of saving ballot images turned out to be time consuming, causing long waits (~90 minutes) at the end of counting each day. In addition, the ballot images were causing the server disk to fill past capacity. As a result, ballot image saving was turned off after storing approximately 90,000 ballot images. In discussions with the vendor, there were potential solutions to the image storage problem that would be pursued by Election Division staff and the EIC.

Several, but not all of the EIC members observed tabulating of ballots on the new equipment.

V. Election Database Structure and Distribution

The EIC made efforts to understand fully the new election system owned by Pima County including meeting with Ken Carbullido and Dan Clark of ES&S, who gave a presentation on the election system. Commissioners were encouraged to observe tabulating and the full process during the elections.

The previous Diebold system was built on a Microsoft Access database that was an open software system that was accessible by various third-party software and manipulated without a trace. It was not a hardened system, whereas the EMS system is. In other words, the database being used cannot be logged into, only the application that has been written has rights to be logged into that accesses the database. As additional security, ES&S has divided the rights to the application into different roles. Only certain people have the rights to define the election, and only certain other people can bring in the election results. A separation of duties has been created within the staff. Additionally, everything that is done goes into an immutable audit log, in addition to there being a video archive of the room stored.

In May, the election software was upgraded from EVS5200 to EVS5210. The new version upgrade was predominantly for electronic poll book environments, which we don't use; but it did fix a minor issue that had been seen in the March election. There were jurisdictions on the ballot smaller than county-wide, such as Oro Valley. Oro Valley precincts should have incremented the [12] precincts within Oro Valley—each time a different precinct was counted, it should have shown one of [12], two of [12], etc., but it did not.

This new version was not available for the March 22nd election, but was available for the May election. This is the only updated software release that has made it through the various certification hurdles since the equipment was purchased.

At the November 2015 election, the first time using the ES&S equipment it was discovered during election tabulating that the hard drive of the server had been incorrectly partitioned from the factory. In February, the vendor came to re-partition the hard drive and was ready for the March election. The drive being incorrectly partitioned affected the ability to save images to the backup server hard drive in the prior election.

The scanner that had problems during the November 2015 election was repaired several times, and eventually had to be replaced by ES&S.

The layout of the tabulating room was redesigned to solve congestion problems when ballot boxes were coming in to the room. The "joggers" were also improved to be less noisy in the room used to vibrate the ballots into straightened piles.

The cast vote record (CVR) is critical for the election database distribution. Attempting to adhere to Judge Miller's previous order for release of CVRs to the political parties requires the use of ballot images, CSV (comma separated value) files are created cumulatively that can be viewed for day one, day two, etc. As a result of the 2006 elections, there was a court case and a decision that required Pima County to distribute the database to the political parties and anyone else interested after its elections.

The time to save images has added an additional 3-4 hours each day after tabulating just to transfer images. This slowness in image transfers we are told by ES&S is to be fixed by a software release sometime next year. Version EVS5400, should improve the speed of saving images and is in testing at the federal level.

The Election Division staff and the EIC continue to look for ways of improving this process.

VI. Risk Limiting Audits & Pilot Study

Arizona law (A.R.S. §16-602) provides statutory support for conducting hand counts of a limited sample of ballots to check the performance of the election system. The hand counts are unquestionably beneficial and it is comforting that the hand counts have agreed closely with the official counts of those ballot samples.

Several members of the EIC felt that one of the significant shortcomings of Arizona's audit law is that the prescribed hand count sample size did not have statistical connection to any rigorous measure of confidence that the election results are correct. State law says that the sample size shall be 2% of precincts and 1% of early ballots. In recent elections, Pima County has chosen to double the sample. These sample sizes may be sufficient to ensure that the ballot scanners are operating in a reliable manner, but there is no statistical justification for this conclusion. In addition, the existing hand count does not adequately address the parts of the election system that accumulates data from multiple scanners and creates reports, including the formal canvass.

In January 2016, the EIC became aware of an auditing technique called Risk-Limiting Audits (RLAs) that was to provide a systematic way to obtain strong assurance that the election system has reported the correct winners. The RLA looks at a relatively small set of randomly selected ballots. The size of the sample set depends on the fractional vote margin between contest winners and losers – the larger the margin, the smaller the sample set. The audit stops if it becomes statistically unlikely (the risk limit) that the reported outcomes are in error. If such convincing evidence is never obtained, the RLA proceeds to a full hand count that corrects the reporting error.

The RLA approach was recommended by the 2014 Presidential Commission on Election Administration and pilot studies on RLAs have been conducted in several states. Colorado that has no hand count audit recently has passed a law requiring RLAs beginning in 2017 to be conducted by election staff.

In February 2016, the inventor of RLAs, Dr. Philip Stark of Cal-Berkeley, gave a presentation to the EIC describing the basic philosophy of the audit and how it would be conducted. RLA theory allows for several different procedures depending on the capabilities of the installed election system. Pima County's new election system supports the "Ballot Comparison" RLA, the method that yields the smallest sample sizes. This approach requires that scanned ballots be imprinted with a unique serial number so that physical ballots can be compared with the corresponding Cast Vote Records that show how the ballot was interpreted by the election system. A difficult aspect of any RLA is the retrieval of specific randomly selected ballots from storage boxes. This is simplified to some degree by creation of a ballot manifest that specifies the location of each ballot.

The EIC considered conducting a pilot study during the 2016 General Election, but decided against it given concerns that the RLA might disrupt standard procedures and create conflicts with the existing hand count. Instead the EIC, together with the Elections Department, decided to conduct the RLA pilot study on a mock election, originally scheduled for December, but ultimately moved to January 25, 2017. The mock election consisted of 30,000 ballots, each with

the same six contests. 29,700 of these ballots were pre-marked by the printer and 300 were left blank. The EIC decided that members would fill out the 300 blank ballots. The actual mock election and RLA was attended by most of the EIC members and was supported by several Elections Department staff members.

A detailed description of the mock election and the subsequent RLA pilot study is provided on the website under December 16, 2016 minutes. A summary of the advantages and disadvantages this type of audit is also provided on the website with EIC commissioners' comments following the mock election that was held January 25, 2017. The EIC did not issue any formal decisions on any future use of the procedure.

But noted, although the RLA provides a statistically rigorous approach to auditing, members and staff were concerned that a) the retrieval of ballots is cumbersome, b) the auditing of contests crossing county lines requires cooperation from multiple counties (or the state as a whole), and c) the resources needed to conduct the RLA, and the time involved, depends on reported election outcomes that cannot be predicted in advance.

Colorado is moving ahead with their requirement to implement RLAs, and the EIC will track their progress.

VII. Tracking New Legislation
The EIC tracked monthly progress of legislation relevant to elections.

Hot button issues in the Legislature this year were: ballot harvesting, action around Clean Elections, and the PPE funding bill.

Ballot harvesting was passed with nothing procedurally to enforce the statute. In the absence of a uniform set of procedures, including in the Procedures Manual, there wasn't any enforcement at the polling locations. The Police Department is very sensitive about showing up at polling places, because law enforcement deters people from entering. Usually, they are called with regard to electioneering, and when they do show up they will get in and out just as fast as they can. When the Police Department is called, troubleshooters go to the polling place, if available.

The Secretary of State's Office had indicated that the Elections Procedures Manual rewrite was postponed pending legislative actions.

SB1516, which was the Secretary of State's rewrite of campaign finance laws, passed and was signed into law. All the counties were presented with the Secretary of State's 2017 launch of a new campaign finance system in August where everyone at the various jurisdictional levels were to be in the same system with all records stored in one location, intended to standardize how campaign finance is reported.

VIII. Lawsuit and Public Records Request

The Elections Department received two public records requests from Mr. John Brakey, the first on August 15, included nine individual items requested as public records. Some of these nine

had to be denied because the records do not exist; however, the request was responded as best as it could be.

Another second request by Mr. Brakey was to be able to inspect the ES&S operations manuals for our new elections equipment. Since such information is proprietary, ES& S the vendor that licenses its software to the County, was asked if there were any objections and then the manuals were made available for inspection.

On August 29, a lawsuit was filed in Superior Court by Mr. Richard Hernandez against Pima County to release the ballot images as part of public records request, something the County and EIC had been instructed by the Secretary of State Office to treat ballot images the same as paper ballots.

On September 14, a second request from Mr. Brakey was received for the cast vote record (CVR) of the August 30 Primary Election along with the ballot images; the ballot images being subject to ongoing litigation by the Hernandez suit in Pima County Superior Court, and that request still pending.

Some background on ballot images. In 2008, the Board of Supervisors voted unanimously that auditing elections with images that might be available online sounds like a good idea, but it needs to be done legally. They sent a letter to then Secretary of State Jan Brewer. Secretary Brewer responded that no Arizona county can make up their own rules. This needs to be vetted through the legislative process so that everyone is doing it uniformly. Absent that, Pima County may not use images for auditing purposes. In 2012, Secretary Ken Bennett's office responded to the same query that given the fact that Pima County had just had a number of elections with the hand count audits and everything looked good, there is no need to use images for that purpose. Eric Spencer of the Secretary of State's Office, during a meeting with this Commission, said that although images may become public record, he doubted they would become disclosable.

In March 2017, the legislature did pass SB1094 that says ballot images should be treated the same as paper ballots.

In May 2017, Judge Richard Gordon is expected to rule on the status of ballot images becoming public record and disclosable.

IX. Public Input

Mr. Pete Davis, a resident of Green Valley brought concerns to the Commission over registered voters being incorrectly registered for party affiliation during the PPE and was referred to this Commission by the Board of Supervisors. Mr. Davis claimed that there had been 21 complaints from voters coming into the Green Valley Republican headquarters saying voters were not registered correctly.

Mr. Chris Roads of Pima County Recorder's Office, had received information on five voters from Mr. Davis that he had researched. Mr. Roads explained the process; the date that a voter registration form is received by any recorder or the Secretary of State that is the receipt date. If a form is sent by mail, it is the date signed, unless they are working with a cut-off date, in which

case statute controls and the postmark date rules. If it comes in an envelope with other forms, they write the postmark date on every form.

In the case of the Hirz's, the forms were dated February 17th but they arrived in the Recorder's office March 2nd . The voter registration deadline for the PPE was February 22nd and the postmark date was February 29 which was a full week after the cutoff date; they did not come from the Secretary of State's office. By state law, he could not accept these forms. He did not know where the forms had come from but they did not have a Secretary of State stamp on them. Mr. Roads sited the statute citation as ARS §16-134.C.

Mr. Simms had registered through an MVD office in May 2014, left the party blank and was therefore entered into the system by the clerk correctly; the next form was dated March 22, 2016 in which he did fill out the party as Republican. Susan Garioto's registration was an error by a MVD clerk; she submitted her form at a MVD office in January 2016 in which she designated the party "REP". The clerk, however, entered TRP, and Recorder's office staff should have gotten a copy of her form then. Had she (Ms Garioto) gone to a polling place and voted a provisional ballot, they would have pulled her MVD form and her ballot would have counted. The last one on the list was difficult to read, but investigating what he thought the name was, she had filled out a MVD form in 2009 and left the party blank.

Voter notification cards are mailed out every four years in the spring of a presidential election year, and the PND designation would have shown on those. Chris brought an example of a new MVD form issued by the Secretary of State and MVD the Monday after the PPE. The change to the form standardizes the "Party Preference" box in the voter registration section to the actual voter registration form, where they can check a box for their party preference. Previous MVD forms said only to specify party. The Secretary of State did not solicit input from any of the recorders before publishing this new form. The Pima County Recorder's Office gave their input after the fact, and the SOS agreed to meet with all the recorders and submit a request to MVD to redesign the form.

Pima County requested to see three questions on the form: 1.) Do you wish to register to vote? 2.) Are you a United States citizen? 3.) Do you want to be on the Permanent Early Voting List? And that they be the last three questions on the form, so they stand out uniquely from all the other issues on the form. Secretary of State's office was receptive to that, and would design the form and send it to all the recorders for input, then submit it to MVD.
In response to discussion about verification to online changes to voter registration, Mr. Roads noted that when changes are done online with MVD, a receipt is generated with a confirmation number and emailed to the voter.

Commissioner Cole brought to the Commission a concern expressed in the media by a candidate, Richard Hernandez, who claimed when taking his petitions, he was given an old copy of the boundary lines for [Supervisor] District 2; and not a current map. This was the basis for a challenge used for a lot of his signatures on his petitions from people outside of District 2. The elections department asked for the date of the old map, as the Board of Supervisor boundaries changed after redistricting in 2011 and had not changed since then. It was next to impossible for a 2011 map to still be at the front desk for sale. From video evidence, Mr. Hernandez had not acquired a District map the day he took petitions, nor was there any copy of receipt in the book

as having ever bought a map. The Commission concluded that in the end, candidates have personal responsibility of knowing the boundaries of a district they are running in.

Commissioner Schutte requested discussion of an email and press release from Michael Hicks, TUSD School Board member to discuss a complaint regarding campaign finance. Point in question was whether or not school board candidates have the same minimums for campaign donations as other candidates? Mr. Hicks had a complaint and because school board election oversight is split between Superintendent of Schools and Elections he was requesting information as to where to file a complaint.

Mr. Nelson explained to the Commission that school board candidates are different from other candidates in that they file their campaign finance information with the Elections Department, but they file their nomination paperwork with the County School Superintendent. The Elections Department is just a repository for campaign finance reports. The reports are public and available online for review. In the Elections Department's due diligence research of a reported violation, they will contact the campaign treasurer; perhaps they will amend their report. If an amendment is made, Elections Department will notify the interested parties. If it does not appear that everything is in sync, the Elections Department has no authority to issue a legal opinion, so the matter will be turned over to the County Attorney.

Mr. Hicks was recommended to speak with the campaign finance person at Elections to get answers and then the Superintendent of Schools.

X. SECURITY ISSUES
Worth noting this year, the Campaign finance filings on the Secretary of State website was down for a week with national media suggesting that both Arizona and Illinois had suffered hacks of their elections computer systems. Those reports implied our state failed to take adequate precautions to prevent a SQL inject attack, something Michelle Reagan denied as being inaccurate. The Secretary of State's Computer security experts claimed there was no unauthorized user access to the State voter registration information. At most, someone stole a login ID of a county election worker.

With this alert to the Secretary of State's possible voter registration problem, the Pima County IT Department did a review of both the elections system and voter registration system. As, the Elections Procedures Manual requires that all counties have a stand-alone, air gap tabulation system not hooked up to any other system it would be impossible to access the election computer over the internet.

In July, the ITD reviewed the procedures used by the Elections Department to determine it meets and exceeds security requirements of the Procedures Manual; such as the use of a split passwords.