EXHIBIT 4

DECLARATION OF WALTER C. DAUGHERITY

WALTER C. DAUGHERITY declares, under penalty of perjury, pursuant to 28 U.S.C. § 1746, that the following is true and correct.

Qualifications

1. My full name is Walter Chisholm Daugherity. I am a Senior Lecturer Emeritus in the Department of Computer Science and Engineering at Texas A&M University and also a computer consultant to major national and international firms, as well as to government agencies, including classified work.

2. Prior to my retirement in 2019, I taught computer science and engineering at both the undergraduate and graduate levels for 37 years, the last 32 years being at Texas A&M University. Courses I developed and taught include courses in artificial intelligence, expert systems, programming and software design, quantum computing, and cyberethics.

3. I have published 26 research articles related to expert systems, fuzzy logic, noise-based logic, and quantum computing from over $2.8 million in funded research projects, plus conference papers and other publications.

4. As a computer expert I have consulted for major national and international firms, including IBM Federal Systems Division, *New York Times*, *Washington Post*, *Los Angeles Times*, Southwestern Bell Telephone, Fulbright & Jaworski (Houston), and

Phonogram B.V. (Amsterdam), and also for government agencies such as Cheyenne and Arapaho Tribes of Oklahoma, Texas Department of Agriculture, U. S. Customs Service, and classified work.

5. Further details about my qualifications are included in my Curriculum Vitae attached as Exhibit A.

6. I have qualified as an expert witness in court cases related to elections, electronic voting machines, and election data.

Ballot Tabulation Failures

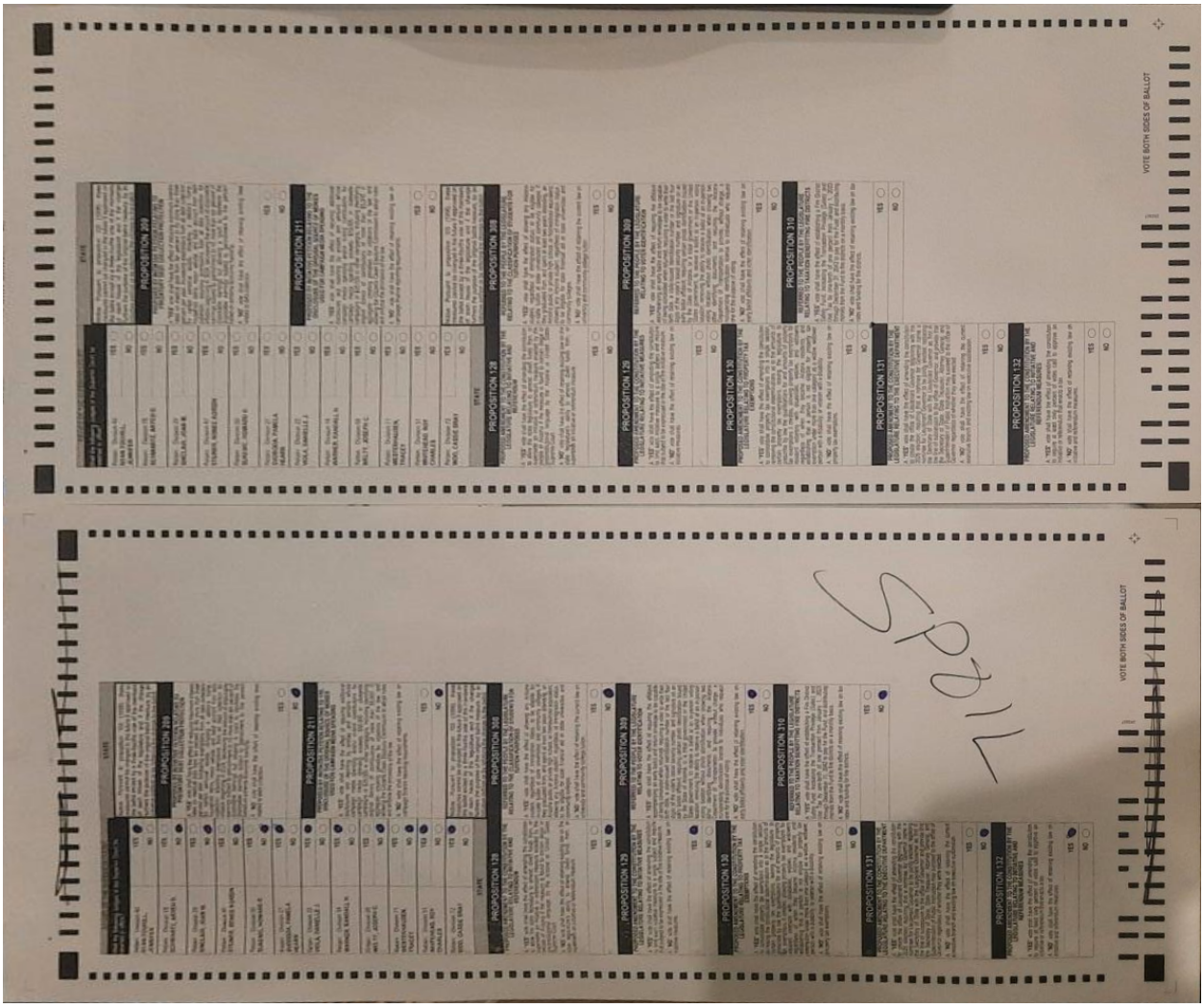
7. I have been provided the tabulator System Log files by Tim LaSota, counsel for Kari Lake, who obtained them from Maricopa County pursuant to a Public Records Act Request.

8. As has been widely reported, there was an extremely large number of ballot tabulation failures at the 223 voting centers in Maricopa County on Election Day, November 8, 2022. By examining the System Log file messages for each tabulator used at Maricopa County's 223 vote centers, as well as the tabulators used at the Maricopa County Tabulation and Election Center (MCTEC), the various types of "insertion error" messages were identified and categorized.

9. However, some of these "insertion error" System Log messages are not "failures" in the sense that the tabulator failed to scan the inserted ballot due to an inability to scan the ballot because of a configuration issue or print quality error, so such error messages must thus

be counted separately. For example, if the tabulator scanned a ballot correctly, sensed an overvote (*e.g.*, voting for more candidates than allowed for a race), informed the voter, and the voter chose not to cast that ballot but to first correct it, the ballot would be ejected.

10. To understand the types of "insertion errors" which ***<u>are</u>*** failures, here is a photograph of the back side of two 20-inch ballots, a good ballot (top) alongside a bad ballot (bottom), which was spoiled:



11. The large black rectangles at three of the four corners enable detection of which end of the ballot is the top, since ballots may be inserted into the tabulator in either direction.

Then around the outer border of the ballot is a series of uniformly-spaced timing synchronization marks which enable the tabulator to determine the row and column of each filled-in bubble and look up the corresponding candidate, contest proposition, etc., in the ballot definition file and tally the vote. The tabulator software scrupulously checks that all these marks are exactly the right size and in exactly the right position, to ensure that the ballot is genuine and that the correct candidate or proposition is tallied for properly filled-in bubbles.

12. Careful inspection of the bottom (bad) ballot reveals that there is a half-inch extra white space at both the top and the bottom, which means that the total distance from the top timing mark row to the bottom timing mark row is one inch less than on the top (good) ballot. The side margins are similarly wider on the bad ballot, and measurements verify that the good 8.5-inch by 20-inch image (top) has been shrunk by 5% to make an 8.075-inch by 19-inch image, which is then centered and printed on 8.5-inch by 20-inch paper. In other words, the good ballot image has been reduced to 95% of its proper size.

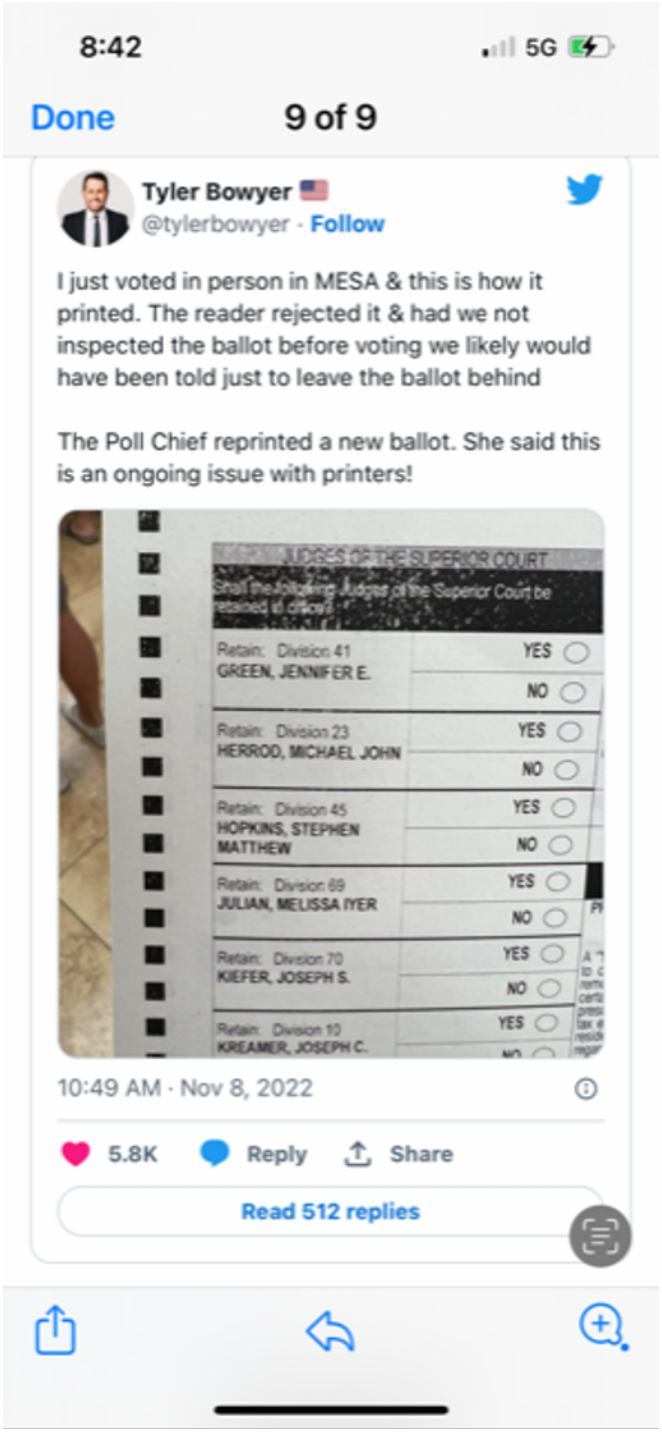
13. This results in all the edge markers and frame timing synchronization marks' being too small, which makes the ballot invalid. Multiple detailed error messages are then generated in the System Log file, such as:

```
08 Nov 2022 06:28:03 [ImageProcessing] ERROR : [Pixel Count] left edge marker #39 not found.
08 Nov 2022 06:28:03 [ImageProcessing] ERROR : [Pixel Count] Determine Vertical edge markers failed
08 Nov 2022 06:28:03 [ImageProcessing] ERROR : [Pixel Count] Ballot misread.

…

08 Nov 2022 06:28:05 [CentralManager] INFO : [CentralManager] Ballot returned to a voter
```

since the ballot is unscannable.

14. Another cause of failure, which likewise affects the edge markers and timing

synchronization marks, is when the ink printed on the ballot is not dark enough or is not uniform, as in this photograph:



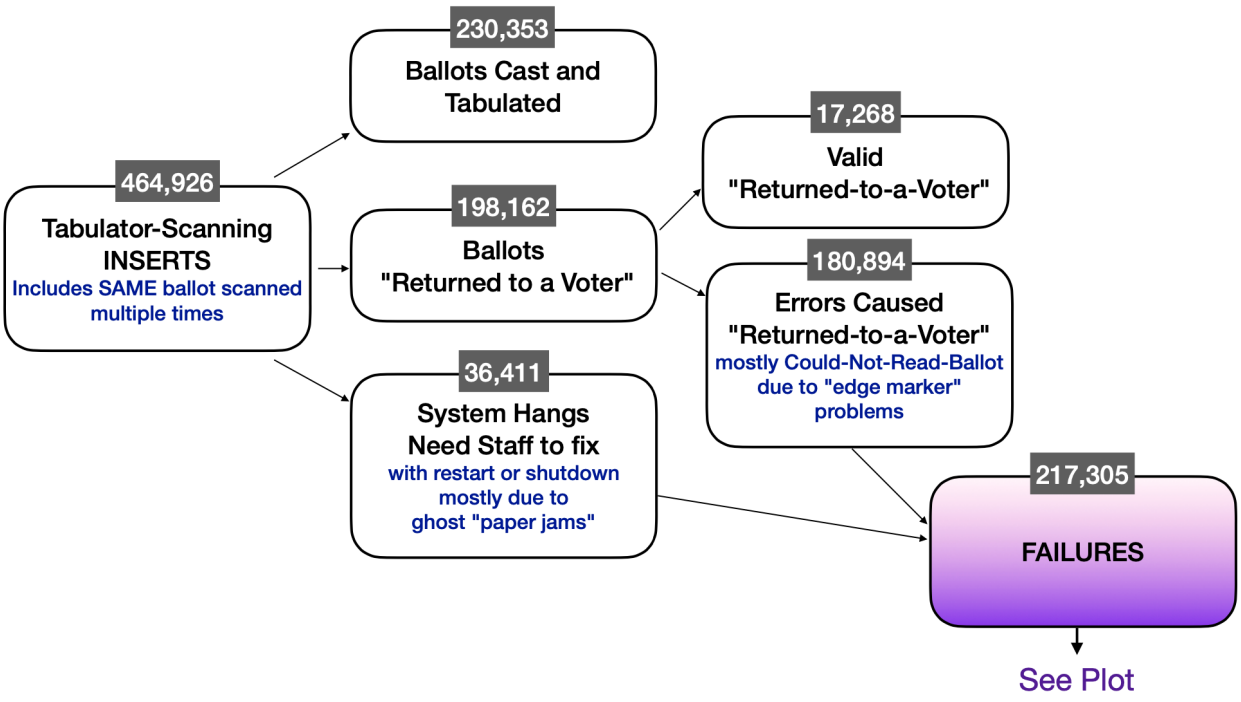
As a result, the ballot is again rejected, since (in layman's terms) the marks are not perfectly

sized, completely black rectangles. I am informed that once this particular problem was identified on Election Day, some enterprising poll workers or voters spread the word at their voting center to laboriously blacken all the edge markers and timing marks by hand in order to get a rejected blotchy ballot to scan.

15. Possible causes of blotchy printing include (1) insufficient toner (ink cartridge is low and needs replacing) and (2) too low a print fuser temperature. The latter is especially important for heavy media such as the 80 or 100-pound ballot paper specified by the tabulator vendor. I am informed that some technicians discovered the misprinting printers were not set to "heavy media" as they should have been, and when they changed the printers to this correct setting, the print quality improved.

16. All of the "insertion error" System Log messages described in ¶¶ 8-15 above were then categorized by type and counted, as depicted in the following graphic:

Ballot-Insert Counts and Flow from Voting Center (Election Day) Tabulator System Logs



17. Of 464,926 tabulator-scanning ballot insertions, 230,353 ballots were cast, 198,162 ballots were returned to the voter, and 36,411 times there was a "system hang" or ghost "paper jam" requiring operator intervention. Of the 198,162 ballots returned to the voter, 17,268 were proper since they were at the request of the voter (see ¶ 9 above), leaving 180,894 which were errors.

18. Attached as Exhibit B is a chart showing the number of ballot rejections due to configuration and/or print quality issues by vote center. These resulted from bad edge markers (corner alignment marks and timing synchronization marks around the "frame" of the ballot image) due to (1) the marks' being too small due to shrinking the 20-inch ballot image to 19 inches and then centering and printing it on 20-inch paper, (2) blotchy printing

due to improper printer media weight setting, or (3) blotchy printing due to insufficient toner. In case (1), improperly shrinking the ballot image from 20 inches to 19 inches shrank the edge markers by 5% (19 is 5% less than 20) and the tabulator correctly identified them as too small to be a valid ballot. In cases (2) and (3) the timing marks were not completely black.

19. A total of 138 vote centers (out of 223) in Exhibit B show a ballot insertion rejection rate of 20% or more. This is 100 or more times the acceptable limit of 0.2% (1 in 500) specified in the Election Assistance Commission's (EAC's) Voting System Guidelines version 2.0; see section 1.2-G, which says:

> **1.2-G – Misfeed rate benchmark**
>
> The voting system misfeed rate must not exceed 0.002 (1 / 500).
>
> **Discussion**
>
> Multiple feeds, misfeeds (jams), and rejections of ballots that meet all manufacturer specifications are all treated collectively as "misfeeds" for benchmarking purposes; that is, only a single count is maintained.

Timing of Ballot Insertion Errors

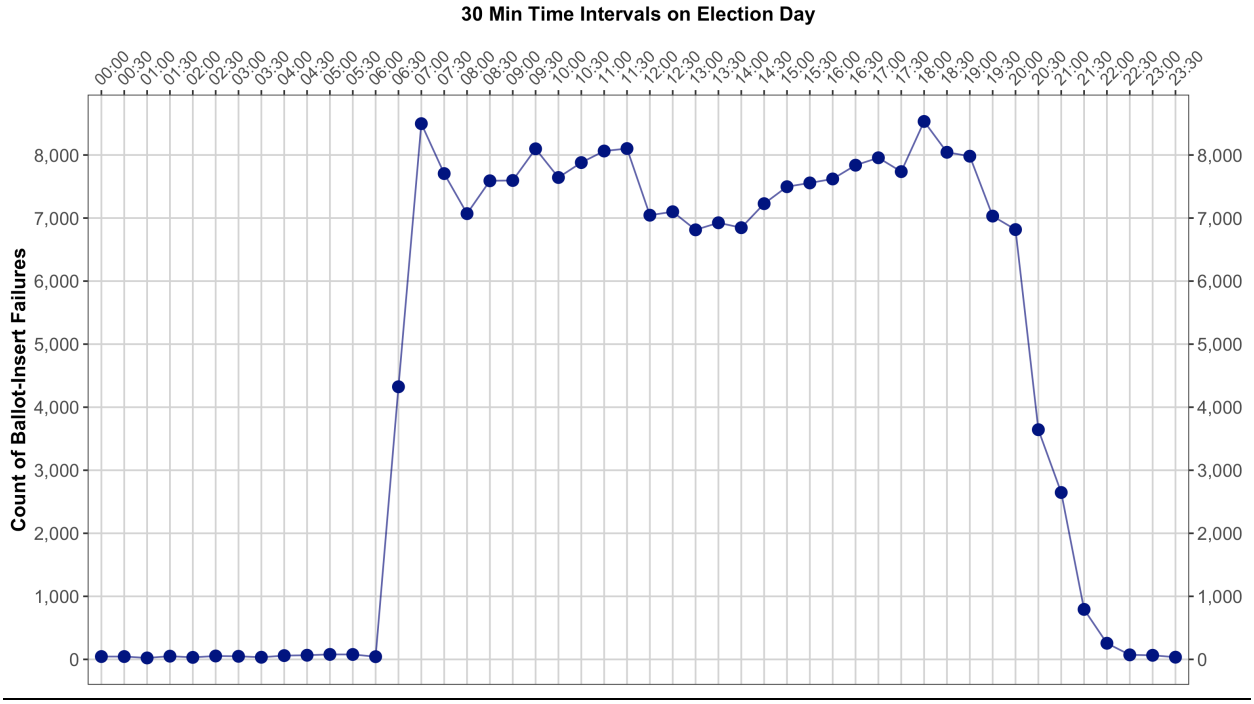
20. All of the System Log messages are time-stamped, which makes it possible to see when the ballot insertion errors occurred throughout Election Day, as depicted in the following graph (which is the "Plot" referred to in the graphic in ¶ 16 above):

Count of Ballot-INSERT FAILURES in 30 Min Time Intervals
Across ALL Voting Centers on Election Day

MARICOPA Co AZ 2022 General Election -- System Logs (SLOGS) Analysis

An Insert is whenever a ballot is put into a tabulator-scanner, even if the same ballot is inserted multiple times

Local Voting Centers: 223 Total Tabulators: 444 Tabulators per Voting Center: about 2, A or B
Total Inserts: 464,926 Total Inserts that Failed: 217,305 Percent Inserts that Failed Overall: 46.7%



21. This shows that, across the county, over 7,000 ballot insertion failures occurred in almost every single 30-minute period for the entirety of Election Day, starting at 7:00 A.M. and continuing to 8:00 P.M., with a smaller number of failures prior to 7:00 A.M. and after 8:00 P.M. This was thus an enormous and continuous problem which did not get better overall during Election Day, despite numerous technicians' making adjustments throughout the day.

22. These facts belie Maricopa County's representations that the problems were minor and quickly remedied.

Inconsistencies in the Redacted Cast Vote Record

23. I have also been provided with the redacted Cast Vote Record (CVR) by Tim LaSota, counsel for Kari Lake, who obtained it from Maricopa County pursuant to a Public Records Act Request. Since it is labelled "redacted" it is not complete; however, the portions of the actual CVR remaining are represented by the County to be accurate, but this does not appear to be the case.

24. Although votes were cast in all voting centers, 43 voting centers do not appear at all in the redacted CVR. These are the same voting centers listed in the County's reconciliation report (attached as Exhibit C) as having been tabulated at Central Count ***instead of using the voting center results recorded on their memory cards***, with the exception of Journey Church, which both appears in the redacted CVR (indicating its memory cards were counted) and also in Exhibit C as counted at Central Count, so it may have been counted twice. As a result, there is no way to know what the true outcome of the votes in those voting centers are, nor the total votes for the entire election.

25. Note that only two voting centers are listed as having "Door 3" ballots (defective ballots rejected for printing failures as described in ¶¶ 10-18 above, or for other reasons) commingled with ballots that were successfully scanned and tabulated to the memory cards. To rectify this commingling error, the memory cards from these two voting centers were ignored and all the ballots tabulated at Central Count. ***This should not have been done for any other voting centers.***

26. Also note that defective ballots rejected for printing failures at a voting center would likewise be rejected by a Central Count scanner, since the same ballot

style definitions and format must be used.

Mismatched Signatures

27. I received a copy of Exhibit 12 in *Lake v. Hobbs*, the Declaration of Shelby Busch dated December 7, 2022, regarding mismatched signatures in Maricopa County, Arizona ("Busch Declaration"). From a large sample of mismatched signatures from the November 3, 2020, election, the Busch Declaration projects the expected number of "egregiously mismatched" signatures and "standard mismatched" signatures in the November 8, 2022, election. (Note: The terms "egregiously mismatched" and "standard mismatched" are defined in the Busch Declaration, *e.g.*, at ¶ 19. For example, a signature with a completely different name is termed an "egregious mismatch" and a signature which does not meet the Arizona Secretary of State standards is termed a "standard mismatch.")

28. I was asked to assess the accuracy and statistical significance of the mathematical calculations in the Busch Declaration, specifically in its ¶¶ 19-20.

29. I confirmed that the calculations performed therein are accurate to within rounding to two decimal places.

30. To determine confidence intervals for the projections to the 2022 election made in the Busch Declaration, the appropriate standard statistical method is the "Exact Binomial Test." The confidence intervals resulting from that statistical test were then used to determine the minimum and maximum range for the projections to the 2022 election.

31. The resulting spreadsheet is attached as Exhibit D. It is divided horizontally into two sections: the top half deals with projections of the number of "egregiously

mismatched" signatures, and the bottom half deals with projections of the number of "standard mismatched" signatures. Each half contains the upper and lower limits for five different confidence levels, 95%, 99%, 99.9%, 99.99%, and 99.999%.

32. In both halves the most compelling numbers are highlighted, namely:

(a) With 99.999% confidence, the projected number of ***egregiously mismatched*** signatures in 2022 is at least 184,224 out of 1.9 million ***ballot envelopes***.

(b) With 99.999% confidence, the projected number of ***egregiously mismatched*** signatures in 2022 is at least 127,186 out of 1,311,734 ***early votes***.

(c) With 99.999% confidence, the projected number of ***standard mismatched*** signatures in 2022 is at least 236,763 out of 1.9 million ***ballot envelopes***.

(d) With 99.999% confidence, the projected number of ***standard mismatched*** signatures in 2022 is at least 163,458 out of 1,311,734 ***early votes***.

33. Thus, in all four cases, with 99.999% confidence the projected number of mismatched signatures by either criterion is over seven times the 17,117-vote margin of victory reported in the race for governor.

34. The calculations I performed confirmed that the calculations in the Busch Declaration, specifically in its ¶¶ 19-20, are accurate to within rounding to two decimal places.

35. Using appropriate standard statistical methods, I calculated five sets of confidence intervals for the projected number of mismatched signatures in 2022, at two levels of stringency for what constitutes a mismatch.

36. Taking the lowest (most conservative) of these confidence intervals, and the

most conservative mismatch criterion, the results show that, with 99.999% confidence, the projected number of mismatched signatures in 2022 is at least 127,186 out of 1,311,734 early votes.

37. 127,186 mismatched signatures is over seven times the 17,117-vote margin of victory reported in the race for governor.

38. UPDATE: Yesterday (January 21, 2023) I received from Shelby Busch an update to the Busch declaration dated December 7, 2022, as follows:

Failed SOS Standards	47,366
Egregious Signature Mismatches	38,909

Total Amount of Signatures Reviewed is 380, 976

39. Since the percentage of ***egregiously mismatched*** signatures is now 10.21%, which is higher than the 9.97% in the original smaller sample of 230,339, the projected number of mismatched signatures in 2022, with 99.999% confidence, is even more than 127,186 out of 1,311,734 early votes.

Conclusions

40. **Ballot Tabulation Failures**: There was an extremely large number of ballot tabulation failures at the 223 voting centers in Maricopa County on Election Day, including 180,894 errors which were printer or system failures, as documented in the tabulator System Log files. A total of 138 of these 223 vote centers show a ballot insertion rejection rate of 20% or more, which is 100 or more times the EAC's acceptable

limit of 0.2%.

41. **Timing of Ballot Insertion Errors**: Across the county, over 7,000 ballot insertion failures occurred in almost every single 30-minute period for the entirety of Election Day, starting at 7:00 A.M. and continuing to 8:00 P.M., with a smaller number of failures prior to 7:00 A.M. and after 8:00 P.M. This was thus an enormous and continuous problem which did not get better overall during Election Day, despite numerous technicians' making adjustments throughout the day.

42. **Inconsistencies in the Redacted Cast Vote Record**: 43 voting centers do not appear at all in the redacted CVR, but are listed in the County's reconciliation report (attached as Exhibit C) as having been tabulated at Central Count ***instead of using the voting center results recorded on their memory cards***,

43. **Mismatched Signatures**: With 99.999% confidence, the projected number of mismatched signatures in 2022 is at least 127,186 out of 1,311,734 early votes.

44. I have personal knowledge of the foregoing and am fully competent to testify to it.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 22, 2023.

/s/*Walter C. Daugherity*

Walter C. Daugherity

EXHIBIT A

Curriculum Vitae of Walter C. Daugherity

Walter C. Daugherity
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College Station, TX 77845
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EDUCATION

Ed.D., Mathematical Education, Harvard University, Cambridge, Massachusetts, 1977. Dissertation: "On the Ordering of Topics in the Teaching of Mathematics." Advisor: Marc Lieberman.

M.A.T., Mathematics, Harvard University, Cambridge, Massachusetts, 1967 (age 20).

B.S., Mathematics, Oklahoma Christian College, Oklahoma City, Oklahoma, 1966 (3 years). Minors: Physics and chemistry, German.

EXPERIENCE

1973 to present	Daugherity Brothers, Inc., (Computer consultants), Bethany, Oklahoma. Co-founder, chairman, and president. Clients include IBM Federal Systems Division, New York Times, Washington Post, Los Angeles Times, Cheyenne and Arapaho Tribes of Oklahoma, Southwestern Bell Telephone, Fulbright & Jaworski (Houston), Texas Department of Agriculture, Phonogram B.V. (Amsterdam), and U. S. Customs Service.
1987 to present	Texas A & M University, College Station, Texas. Visiting Assistant Professor/Senior Lecturer/Senior Lecturer Emeritus, Departments of Computer Science and Engineering and Electrical and Computer Engineering, College of Engineering.
1989-91	Texas A & M University System, College Station, Texas. Director, Knowledge Systems Research Center, Computer Science Division of the Texas Engineering Experiment Station.

1984-87	Blinn College, Brenham, Texas. Computer science instructor. Part-time 1984-86, full-time 1986-87.
1978-80	Rose State College, Midwest City, Oklahoma. Data processing instructor (part-time).
1971-73	ECRM, Bedford, Massachusetts. Systems programmer.
1970-71	Harvard Computing Center, Cambridge, Massachusetts. Telecommunications specialist.
1969-70	Computer-Aided Instruction Laboratory, Harvard University, Cambridge, Massachusetts. Systems programmer.
1968-70	Harvard University, Division of Engineering and Applied Physics, Cambridge, Massachusetts. Teaching fellow (for George Mealy and Thomas Bartee).
1967	Driscoll Junior High School, Brookline, Massachusetts. Mathematics teacher.
1967	University of Oklahoma Medical Center Computing Facility, Oklahoma City, Oklahoma. Programmer.
1966	University of Central Oklahoma Data Processing Center, Edmond, Oklahoma. Programmer.
1965	Oklahoma Christian University of Science and Arts, Oklahoma City, Oklahoma. Statistical programmer.
1963	University of Oklahoma Computer Center, Norman, Oklahoma. Lab instructor.

RESEARCH AND DESIGN

1. Refereed Publications

Daugherity, W. C., and Kish, L. B., "More on the Reference-Grounding-Based Search in Noise-Based Logic," *Fluctuation and Noise Letters*, Vol. 21, No. 3, 2250023, 2022.

Kish, L. B., and Daugherity, W. C., "Entanglement, and Unsorted Database Search in Noise-Based Logic," *Applied Sciences*, Vol. 9, No. 15, 3029, 2019.

Kish, L. B., and Daugherity, W. C., "Noise-Based Logic Gates by Operations on the Reference System," *Fluctuation and Noise Letters*, Vol. 17, No. 4, 1850033, 2018.

Daugherity, W. C., and Coulson, R. N., "Knowledge Engineering for Sustainable Agriculture Management," *Proceedings of ICAST 2001 Conference* (Beijing, China, November 2001), 2:266, 2001.

Coulson, R. N., Saarenmaa, H., Daugherity, W. C., Rykiel, E. J., Saunders, M. C., and Fitzgerald, J. W., "A Knowledge System Environment for Ecosystem Management," book chapter in Klopatek, J. and Gardner, R. (eds.), *Landscape Ecological Analysis: Issues and Applications*, Springer-Verlag, 57-79, 1999.

Coulson, R. N., Daugherity, W. C., Rykiel, E. J., Saarenmaa, H., and Saunders, M. C., "The Pragmatism of Ecosystem Management: Planning, Problem Solving and Decision Making with Knowledge-Based Systems," *Proceedings of Eco-Informa '96 Global Networks for Environmental Information Conference* (Lake Buena Vista, Florida, November 1996), 10:342-50, 1996.

Coulson, R. N., Fitzgerald, J. W.*, Daugherity, W. C., Oliveria, F. L., and Wunneburger, D. F., "Using Spatial Data for Integrated Pest Management in Forest Landscapes," *Proceedings of the 11th Conference on Geographic Information Systems: Integrating Spatial Information Technologies for Tomorrow* (Vancouver, British Columbia, Canada, 1997).

Daugherity, W. C.; Harris, C. E., Jr.; and Rabins, M. J., "Introducing Ethics and Professionalism in REU Programs," *Proceedings of the 1995 World Conference on Engineering Education* (Minneapolis, Minnesota, October 1995).

Coulson, R. N., Daugherity, W. C., Vidlak, M. D.*, Fitzgerald, J. W.*, Teh, S. H.*, Oliveria, F. L., Drummond, D. B., and Nettleton, W. A., "Computer-based Planning, Problem Solving, and Decision Making in Forest Health Management: An Implementation of the Knowledge System Environment for the Southern Pine Beetle, ISPBEX-II," *Proceedings of the IUFRO Symposium on Current Topics in Forest Entomology* (Maui, Hawaii), 1995.

Yen, J., Daugherity, W. C., Wang, H.*, and Rathakrishnan, B.*, "Self-Tuning and Self-Learning Fuzzy Systems," book chapter in Yen, J., Langari, R., and Zadeh, L. (eds.), *Industrial Applications of Fuzzy Logic and Intelligent Systems*, IEEE Press, 1995.

* Graduate Research Assistant I funded

Daugherity, W. C., Video review of *Introduction to Biological and Artificial Neural Networks for Pattern Recognition,* by Steven K. Rogers, in *IEEE Transactions on Neural Networks*, Vol. 5, No. 5, 1994.

Teh, S. H.*, Daugherity, W. C., and Coulson, R. N., "A User-Centric Methodology for Building Usable Expert Systems," *Proceedings of the 7th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems* (Austin, Texas, May-June 1994), 45-48, 1994.

Daugherity, W. C., "A Neural-Fuzzy System for the Protein Folding Problem," *Proceedings of the Third International Workshop on Industrial Fuzzy Control & Intelligent Systems (IFIS `93)* (Houston, Texas, December 1993), 47-49, 1993.

Daugherity, W. C., "A Partially Self-Training System for the Protein Folding Problem," *Proceedings of the World Congress on Neural Networks (WCNN `93)*, (Portland, Oregon, July 1993). Invited paper.

Yen, J., Wang, H.*, and Daugherity, W. C., "Design Issues of Reinforcement-Based Self-Learning Fuzzy Control," *Proceedings of the World Congress on Neural Networks (WCNN `93)*, (Portland, Oregon, July 1993).

Daugherity, W. C., "Characterizations of Fuzzy Operations," *Proceedings of the Second International Workshop on Industrial Fuzzy Control & Intelligent Systems* (College Station, Texas, December 1992), 234, 1992.

Yen, J., Wang, H.*, and Daugherity, W. C., "Design Issues of a Reinforcement-Based Self-Learning Fuzzy Controller for Petrochemical Process Control," *Proceedings of North American Fuzzy Information Processing Society* (Puerto Vallarta, December 1992), 1992.

Yen, J., Wang, H.*, and Daugherity, W. C., "An Adaptive Fuzzy Controller with Application to Petroleum Processing," *Proceedings of IFAC Workshop on Intelligent Manufacturing Systems* (Dearborn, October 1992), 1992.

Yen, J., Daugherity, W. C., and Rathakrishnan, B.*, "Fuzzy Logic and Its Application to Process Control," *Proceedings of CAPA Technology Conference* (Houston, May 1992), 78-86, 1992.

* Graduate Research Assistant I funded

Daugherity, W. C., Rathakrishnan, B.*, and Yen, J., "Performance Evaluation of a Self-Tuning Fuzzy Controller," *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)* (San Diego, March 1992), 1992.

Daugherity, W. C., "An Application of Geometrical Reasoning to a Combinatorial Problem," *Proceedings of the Seventh Annual Conference on Applied Mathematics* (Edmond, Oklahoma, April 1991), pp. 226-232, 1991.

Daugherity, W. C., Review of *Data Communications Dictionary*, by Charles J. Sippl, in *Computing Reviews*, Vol. 17, No. 9, pp. 335-336, 1976.

Daugherity, W. C., "Circuits for Dial-up and Local Use of a Stand-alone PDP-8," *Proceedings of the Digital Equipment Computer Users Society*, Vol. 2, No. 2 (Los Angeles, December 1975), pp. 413-414, 1976.

Daugherity, W. C., Review of *Effective Use of ANS COBOL Computer Programming Language*, by Laurence S. Cohn, in *Computing Reviews*, Vol. 16, No. 10, p. 441, 1975.

Manwell, T., Daugherity, W., Desch, S., and Stolurow, L., "Tom Swift and His Electric Bilingual Grandmother," *ACM SIGCUE Bulletin*, Vol. 7, No. 1, pp. 5-17, 1973.

Daugherity, W. C., "A Telephone Amplifier," *Transactions of the Oklahoma Junior Academy of Science*, Vol. IV, pp. 130-132, 1961.

* Graduate Research Assistant I funded

2. Other Publications

Daugherity, W. C., "Honors Section," in Rabins, M. J., and Harris, C. E. Jr. (eds.), *Engineering Ethics Teaching Manual*, 1997.

Daugherity, W. C., "Honors Section," in Rabins, M. J., and Harris, C. E. Jr. (eds.), *Engineering Ethics Teaching Manual*, 1996.

Allen, G. D., Nelson, P., Jarvis, R. D., and Daugherity, W. C., "System Impact of Hit Assessment Capability for NPB Discrimination: Analysis of the Case of No-Hit Assessment," *Weapons Lab/TALN Technical Report*, Kirtland Air Force Base, May, 1990.

3. Other Conference Papers and Presentations

Coulson, R. N., and Daugherity, W. C., "A Knowledge Engineering Approach for Ecosystem Management," 11th Annual Landscape Ecology Symposium, International Association for Landscape Ecology - Integration of Cultural and Natural Ecosystems Across Landscapes: Applications of the Science, Galveston, Texas, 1996.

Coulson, R. N., and Daugherity, W. C., "Decision Support Systems for Forest Pests: Where Do All the Knowledge-Based Systems Go?", North American Forest Insect Work Conference, San Antonio, Texas, 1996.

Daugherity, W. C. and Coulson, R. N., SPBEBE (Economic and Environmental Impact Assessment for Southern Pine Beetle Suppression Projects), computer code, developed for the USDA Forest Service, Forest Health Protection, 1996-1997.

Coulson, R. N., and Daugherity, W. C., "Knowledge System Environment for Ecosystem Management," Global Studies Seminar, Battelle Pacific Northwest Laboratories, Richland, Washington, 1995.

Daugherity, W. C. and Coulson, R. N., ISPBEX-II (Integrated Southern Pine Beetle Expert System), computer code, developed for the USDA Forest Service, Forest Health Protection, 1994.

Daugherity, W. C., and Yen, J., "Tutorial on Neuro-Fuzzy Systems," Third International Workshop on Industrial Fuzzy Control & Intelligent Systems Houston, Texas, December 1993.

Daugherity, W. C., "Introduction to LISP with an On-line Demonstration," Houston Geotech '91, Houston, Texas, 1991.

Daugherity, W. C., "The Universal Classification Problem," South Central Regional Conference of the Association for Computing Machinery, Austin, Texas, 1984.

4. Research Projects

"Remote Laboratory Data Entry and Retrieval System," Texas Department of Agriculture, Walter C. Daugherity, 1986, $3,000 (Daugherity 100%).

"Electrochemical Modeling of a Sinter Plate, Sealed Design Nickel-Cadmium (Ni-Cd) Battery Cell," National Aeronautics and Space Administration, Ralph E. White, Walter C. Daugherity, 1 graduate student, 1989, 25% of my salary 1989-90 (Daugherity 100%).

"Application of Reasoning under Uncertainty to Process Control," Texaco, Walter C. Daugherity and John Yen, 1 graduate student; competitive and peer-reviewed, September 1990, $18,000.

"Design of a Computational Classroom," Texas A & M University, Walter C. Daugherity, September 1990-May 1991, $60,000 (Daugherity 100%).

"Design of a Second Computational Classroom," Texas A & M University, Walter C. Daugherity, January 1991-December 1992, $153,000 (Daugherity 100%).

"Development of Honors Courses in Artificial Intelligence and Analysis of Algorithms," Texas A & M University, Walter C. Daugherity, James Abello and Arkady Kanevsky, 2 graduate students, competitive, September 1991-May 1991, $11,000 (Daugherity 50%).

"Integrated Southern Pine Beetle Expert System"; USDA Forest Service; Robert N. Coulson, Walter C. Daugherity, and Jeffrey W. Fitzgerald; 5 graduate students; competitive and peer-reviewed; 1985-1992, $974,120.

"Distributed Data-Base Support for the ISPBEX Expert System"; USDA Forest Service; Robert N. Coulson, Walter C. Daugherity, and Jeffrey W. Fitzgerald; 1 graduate student; competitive and peer-reviewed; 1992-93; $35,000.

"Integrated Southern Pine Beetle Expert System II"; USDA Forest Service; Robert N. Coulson, Walter C. Daugherity, and Jeffrey W. Fitzgerald; competitive and peer-reviewed; March 1993-February 1994; competitive and peer-reviewed; $170,000.

"Ecological Modelling of Regional Responses to Global Changes: A Knowledge System Environment for Planning, Problem-Solving and Decision Making"; Battelle Pacific Northwest Laboratory; Robert N. Coulson and Walter C. Daugherity; competitive and peer-reviewed; June-December 1995; $39,996.

"Fitness of a Genetically Modified *Gliocladium virens* in Soil and Rhizosphere"; USDA Cooperative State Research Service; Charles M. Kenerley and Walter C. Daugherity; 1 senior associate, 2 graduate students, and 1 undergraduate student; competitive and peer-reviewed; September 1996-August 2001; $254,450 (Daugherity 50%).

"Southern Pine Beetle Biological Evaluation and Economic Evaluation Program Conversion"; USDA Forest Service, Forest Health Protection; Robert N. Coulson (PI) and Walter C. Daugherity (Co-PI); competitive and peer-reviewed; 1996-1997; $16,421.

"The Texas Imported Fire Ant Survey: The Fire Ant Spatial Information Management System (FASIMS)"; Texas Agricultural Experiment Station; Robert N. Coulson (PI) and S. Bradleigh Vinson, Maria D. Guzman, Douglas F. Wunneburger, and Walter C. Daugherity (Co-PI's); competitive and peer-reviewed; January 1998-December 1998; $50,000.

"Special Topics in Computer Science Concepts and Programming"; Academy for Advanced Telecommunications and Learning Technologies; Walter C. Daugherity; competitive and peer-reviewed; June 1998-May 1999; $5,000 (Daugherity 100%).

"Object Modeling Techniques Support for National Simulation Center Tactical Directorate"; U. S. Army through prime contractor Cubic Applications, Inc.; Walter C. Daugherity, James A. Wall, and José Salinas; competitive; September 1998-April 1999; $74,498 (Daugherity 20%).

"The Fire Ant Spatial Information Management System (FASIMS)"; Texas Department of Agriculture, Texas Imported Fire Ant Research and Management Plan; Robert N. Coulson (PI) and Douglas F. Wunneburger, S. Bradleigh Vinson, and Walter C. Daugherity (Co-PI's); competitive and peer-reviewed; 1999-2001; $220,000.

"Evaluating the Impact of Southern Pine Beetle on Ecologically Sustainable Forest Management"; USDA Forest Service; Robert N. Coulson and Walter C. Daugherity; 1 graduate student and 1 undergraduate student; competitive and peer-reviewed; 2000-2003, $90,000.

"Honey Bee Initiative"; State of Texas; Robert N. Coulson (PI), Walter C. Daugherity (Consultant); 2 graduate students; competitive; September 2001-August 2002; $40,000.

"Increasing Computer Science Retention by Developing and Deploying Self-Paced Learning Modules"; State of Texas; Jennifer Welch and Frank Shipman (Co-PI's), Lawrence Petersen, Walter C. Daugherity, and Lauren Cifuentes (Key Personnel); 10 undergraduate students; competitive; June 2002-August 2004; $422,692.

"Facilitating the Transition to Java in High School Computer Programming Classes"; Texas A&M University System Academy for Educator Development; Walter C. Daugherity; 1 graduate student; competitive and peer-reviewed; December 2003-September 2004; $2,966 (Daugherity 100%).

"Instructional Technology Enhancements for Computer Teaching Labs," Texas A&M University, Walter C. Daugherity, competitive, January 2004-August 2004, $20,000 (Daugherity 100%).

"Increasing Computer Science Retention with Peer Teachers and Learning Modules"; State of Texas; Valerie Taylor and Jennifer Welch (Co-PI's), Lawrence Petersen, Walter C. Daugherity, and Joseph Hurley (Key Personnel); undergraduate students; competitive; September 2004-August 2005; $173,158.

Cumulative total: $2,845,801

5. Research Proposals

Note: Funded proposals are listed in section 4 above.

"Automated Support for VLSI Standard Cell Optimization," Texas Advanced Technology Program, Walter C. Daugherity, competitive and peer-reviewed, July 1989, not funded, $233,887.

"Integration of Computer Software Models for NiCd Battery Design," National Aeronautics and Space Administration, Ralph E. White and Walter C. Daugherity, competitive and peer-reviewed, 1990, not funded, $125,000.

"Innovative Use of Supercomputers and Parallel Computers in Grades K-8," Department of Energy, Paul Nelson, Walter C. Daugherity and Bahram Nassersharif, competitive and peer-reviewed, December 1990, preproposal submitted, $885,000.

"Integration of Texas Junior Colleges into State and National Computer Networks," Texas Advanced Technology Program, Walter C. Daugherity and Charles H. Beard, competitive and peer-reviewed, July 1991, not funded, $174,219.

"Adaptive Fuzzy Control for Industrial Processes," Texas Advanced Research Program, John Yen and Walter C. Daugherity, competitive and peer-reviewed, July 1991, not funded, $177,064.

"Development of a Fuzzy Logic Tuner for a PID Controller," Texaco, John Yen and Walter C. Daugherity, 1992-93, not funded, $200,000.

"National Center For Ecological Analysis and Synthesis," National Science Foundation; Robert N. Coulson, Walter C. Daugherity *et al.*, competitive and peer-reviewed, July 1994, not funded, $10,000,000.

"Development of a Fungal Growth Model for Risk Assessment," Texas Advanced Research Program, Charles M. Kenerley and Walter C. Daugherity, competitive and peer-reviewed, July 1995, not funded, $203,792.

"Intelligent Vehicle Navigation System," Texas Advanced Technology Program, Walter C. Daugherity and Jeffrey W. Fitzgerald, competitive and peer-reviewed, July 1995, not funded, $195,058.

"Innovative Programs to Increase the Enrollment in Computer Science," Texas Technology Workforce Development Grant Program, Valerie Taylor and Frank Shipman (co-PI's), Lawrence Petersen, Walter C. Daugherity, and Joseph Hurley (Key Personnel), competitive and peer-reviewed, March 2005, pending, $69,760.

6. New Design Methods, Techniques, or Concepts Developed

Null Modem

I independently invented the null modem in 1969 and constructed one for Harvard University (which is still operational!).

Computer Keyboard National Standard

As a member of the Harvard-MIT Terminal Committee, I participated in the development of the national standard for computer keyboards (*e.g.*, putting braces above brackets for the benefit of programming languages). Nearly every computer terminal and keyboard since then (*e.g.*, VT100, PC) uses this layout.

Integrated User Training

I invented the method of training users about additional features of an application program by integrating the information with the operation of the program (see Manwell, Daugherity, *et al.* under Publications, above). This is now widely adopted, *e.g.*, by Microsoft for its Windows operating systems in the "Getting Started" panel.

Object-Oriented Database

I independently invented and implemented an object-oriented database to support arbitrary combinations of data types.

Self-Organizing Fuzzy Controller

In collaboration with Balaji Rathakrishnan (a Graduate Research Assistant I funded) and John Yen, I developed a new systematic methodology for constructing and tuning fuzzy logic controllers. The research project was funded by Texaco (see the preceding section for details) for use in its refineries.

TEACHING

1. New Courses Developed

CPSC 111/211/311 Java and C-based sequence - Member of curriculum subcommittee, taught 111 and 211
CPSC 210 (Honors) - Data Structures
CPSC 320 (Honors) - Artificial Intelligence
CPSC 489 - Object-Oriented Programming, Systems, and Languages
CPSC 635 - Natural Language Processing (taught by Dr. P. Mayer)
CPSC 689 - Symbolic and Algebraic Computation (not taught)
CSCE 489/PHIL 382 (with Glen Miller [PHIL]) - Ethics and Cybertechnology
ENGR/PHIL 482 (Honors) - Ethics and Engineering
PHIL 282 (with Glen Miller [PHIL]) – Ethics in a Digital Age
PHYS/ELEN 674 (with David Church [PHYS]) - Special Topics in Quantum Computing (the first course at Texas A&M in quantum computing, and, to the best of my knowledge, the first course in quantum computing anywhere in Texas), taught Spring, 2005, for the fifth time.
A Distance Learning section of CPSC 601 - Programming in C and Java, taught Spring, 2003.
Two sections of CPSC 111 - Computer Science Concepts and Programming taught with student peer teachers as assistants, Fall, 2002.
Honors section of CPSC 111 - Computer Science Concepts and Programming taught with student peer teachers as assistants, Fall, 2004.
Developed (with Lawrence Petersen) an intensive summer training program in Java and Software Engineering for high-school computer science teachers, taught Summer, 2003.
Developing an intensive summer training program in Data Structures for high-school computer science teachers, taught Summer, 2004; I was also completely responsible for recruiting teachers, getting them admitted, arranging for housing, and so on.

2. Courses Taught

A. Graduate

CPSC 601	Programming in C and Java
CPSC 602	Object-Oriented Programming, Development, and Software Engineering
CPSC 614	Computer Architecture
CPSC 625	Artificial

Intelligence CPSC 632 Expert Systems
CPSC 681 Graduate Seminar
CPSC 685 Problems
CPSC 691 Research
PHYS/ELEN 674 Quantum Computing (co-teacher)

B. Undergraduate

CPSC 111 Computer Science Concepts and Programming
CPSC 111H Computer Science Concepts and Programming (Honors)
CPSC 120 Programming II
CPSC 120H Programming II (Honors)
CPSC 203 Introduction to Computing
CPSC 206 Structured Programming in C
CPSC 210 Data Structures
CPSC 210H Data Structures (Honors)
CPSC 211 Data Structures and Implementations
CPSC 211H Data Structures and Implementations (Honors)
CPSC 285 Special Topics - Data Structures for Teachers
CPSC 289 Special Topics - Java and Software Engineering for Teachers
CPSC 311 Analysis of Algorithms
CPSC 320/420 Artificial Intelligence
CPSC 320H/420H Artificial Intelligence (Honors)
CPSC 321 Computer Architecture
CPSC 464 Integrated Systems Design Automation
CPSC 485 Problems
CPSC/ELEN 485H Problems (Honors theses)
CPSC 489 Object-Oriented Programming, Systems, and Languages
CSCE 113 Intermediate Programming and Design
CSCE 121 Introduction to Program Design and Concepts
CSCE 121H Introduction to Program Design and Concepts (Honors)
CSCE 315 Programming Studio
CSCE 410 Operating Systems
CSCE 489 Cyberethics (co-teacher)
ENGR 112 Foundations of Engineering II
ENGR 112H Foundations of Engineering II (Honors)
ENGR/PHIL 482H Ethics and Engineering (Honors)

PROFESSIONAL OUTREACH

1. Director, Knowledge Systems Research Center

2. Invited Significant Seminars or Lectures

Daugherity, W. C., "Computers and Privacy," Phi Theta Kappa Honor Society State Convention, Blinn College, Brenham, Texas, 1985.

Daugherity, W. C., and DeSoi, J. F., "Objected-Oriented Programming," Second Annual Texaco Artificial Intelligence Symposium, Houston, Texas, 1989.

Daugherity, W. C., "A Self-Tuning Fuzzy Controller," ARRI Conference on Fuzzy Logic, Arlington, Texas, March 1992.

Daugherity, W. C., Yen, J., and Langari, R., "Tutorial on Fuzzy Logic," Second International Workshop on Industrial Fuzzy Control & Intelligent Systems, College Station, Texas, December 1992.

Daugherity, W.C., "A Partially Self-Training System for the Protein Folding Problem," World Congress on Neural Networks, Portland, Oregon, July 1993.

Daugherity, W.C., "Neuro-fuzzy Systems," Third International Workshop on Industrial Fuzzy Control & Intelligent Systems, Houston, Texas, December 1993.

Daugherity, W.C. and Harris, C.E., "Ethics and Engineering," NSF Research Experience for Undergraduates, College Station, Texas, Summer 1994.

Daugherity, W.C. and Harris, C.E., "Ethics and Engineering," NSF Research Experience for Undergraduates, Austin, Texas, Summer 1994.

Daugherity, W.C. and Harris, C.E., "Ethics and Engineering," NSF Research Experience for Undergraduates, College Station, Texas, Summer 1995.

Daugherity, W.C. and Harris, C.E., "Ethics and Engineering," NSF Research Experience for Undergraduates, Austin, Texas, Summer 1995.

Daugherity, W.C., "Public-Key Cryptography Meets Quantum Computing: Why Secret Agencies are Quaking in their Boots." Quantum Computing Seminar, Texas A&M University, April 9, 2001.

Daugherity, W.C., "Quantum Computing 101: How to Crack RSA." DefCon X, Las Vegas, NV, August 4, 2002.

Daugherity, W.C., "Computer Ethics." ENGR 482 Ethics and Engineering, Texas A&M University, April 14-16, 2003.

Daugherity, W.C., "Incorporating Computer Ethics into an Engineering Ethics Course." University of Texas Ethics Conference, Austin, Texas, April 16, 2004.

Daugherity, W.C., "Computer Ethics." ENGR 482 Ethics and Engineering, Texas A&M University, November 8-10, 2004.

Daugherity, W.C., "[My] 53 Years of Computing History," CSCE 681 Open Graduate Seminar, Texas A&M University, November 18, 2015.

3. Consulting

St. Joseph's Hospital, Bryan, Fall 1990, at no charge.
Other clients include IBM Federal Systems Division, New York Times, Washington Post, Los Angeles Times, Cheyenne and Arapaho Tribes of Oklahoma, Southwestern Bell Telephone, Fulbright & Jaworski (Houston), Texas Department of Agriculture, Phonogram B.V. (Amsterdam), and U. S. Department of the Treasury.

HONORS AND AWARDS

Oklahoma Junior Academy of Science, elected to membership, 1961, Oklahoma State University
National Science Foundation, Institute for High Ability Secondary School Students, 1962, University of Oklahoma
Westinghouse, Science Talent Search national finalist, 1963 National Merit Scholarship test, highest score in Oklahoma, 1963 Frontiers of Science, scholarship, 1963, Oklahoma City, Oklahoma
Engineering Club of Oklahoma City, award, 1963, Oklahoma City, Oklahoma Oklahoma Christian College, full scholarship (top entering freshman), 1963, Oklahoma City, Oklahoma
National Science Foundation, Undergraduate Research Participation Program, 1965, University of Oklahoma, Norman, Oklahoma
Alpha Delta Tau, National Honor Society, 1966
Who's Who in American Colleges and Universities, 1966 Graduate Record Exam in

Mathematics, scored 800, 1966 Harvard
University, Prize Fellowship, 1966
National Science Foundation, Academic Year
Institute, 1967 Phi Delta Kappa, National Honor
Society, 1967
Harvard University, Class Marshal for the Graduate School of
Education, 1967 Harvard University, Bowdoin Prize, bronze medal
and cash award for outstanding writing, 1973
Association for Computing Machinery, selected as a reviewer for
Computing Reviews, 1975
Association for Computing Machinery, Outstanding Regional
Intercollegiate Programming Contest Director Award,
1993, Indianapolis, Indiana
World Congress on Neural Networks, Neural Systems Session Co-
chair,
1993, Portland, Oregon
Graduate Student Council, 1997 Outstanding Graduate Faculty
Award citation: "For your time and dedication to graduate
students at Texas A&M."
Named by the TAMU System to The Academy for Educator Development, a
major component of The Texas A&M University System's
Regents' Initiative for Excellence in Education, 2003 (one of only
two faculty members selected from the entire College of
Engineering).
Winner, $500 cash prize, Texas A&M University Academic Integrity
Week Essay Competition (Faculty Category), 2004.
Texas A&M University, Department of Computer Science &
Engineering, 2009 Undergraduate Faculty Award citation: "In
grateful appreciation of dedicated service, exemplary attitude,
and significant contribution."
Qualified for American MENSA, 2015.
Oklahoma Christian University, Department of Mathematics and Computer Science,
2015 Distinguished Alumnus Award citation: "For outstanding vision,
dedication, and commitment to excellence."

EXHIBIT B

Number of ballot rejections due to configuration and/or print quality issues, by vote center.

Vote Center	County Source Report (BLUE Printer Problem Site as per M.C.	County Reported Check-in	County Reported Ballots	Cast Vote Record Total Votes (Official Record)	Total Ballots Cast A & B	% of Ballots Rejected/Total Cast	Total Ballots Rejected A & B (w/out Ballot Review)	% of Ballots Rejected/Total Inserted	Total Ballots Inserted A & B
	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
North Phx Bap Ch PV Campus 10769 *	Memory Cards	1,051	1,047	338	338	766.57 %	5,971	86.85 %	6,875
St Nikolas Serbian Orth Ch 12268 *	Memory Cards	640	639	442	439	55.13 %	2,876	75.41 %	3,814
Deer Valley Airport 12875 *	Memory Cards	1,360	1,354	927	927	16.18 %	5,712	78.44 %	7,282
Gila Bend School Dist 10438 *	Memory Cards	136	136	99	99	25.25 %	520	77.38 %	672
First UMC of Gilbert 11932 *	Memory Cards	1,165	1,165	768	768	09.90 %	3,148	75.97 %	4,144
Sevilla Elementary School 10432	Memory Cards	702	702	425	425	00.94 %	1,704	72.91 %	2,337
Light And Life Church 12903 *	Central Count *	989	986	713	713	81.07 %	2,717	71.76 %	3,786
Calvary Free Lutheran Ch 14432 *	Memory Cards	1,275	1,275	700	700	75.00 %	2,625	71.20 %	3,687
Salt River Pima Community Ctr 10580 *	Memory Cards	809	809	403	403	69.98 %	1,491	69.87 %	2,134
Desert Christian Fellowship 12662 *	Memory Cards	1,040	1,027	689	689	48.91 %	2,404	69.38 %	3,465
Faith Baptist Church 10492 *	Memory Cards	1,011	1,011	664	664	47.74 %	2,309	69.26 %	3,334
Shadow Mountain High School 12774 *	Central Count	1,535	1,526	Central Count	1,208	16.47 %	3,823	69.41 %	5,508
Valley Baptist Church Tonopah 14178 *	Memory Cards	598	597	404	375	06.40 %	1,149	67.08 %	1,713
Journey Church 15731 *	Memory Cards	1,503	1,499	1,142	1,142	04.64 %	3,479	68.34 %	5,091
Worship & Word Church 15581 *	Memory Cards	1,115	1,115	946	946	90.59 %	2,749	68.59 %	4,008
Via Linda Senior Center 13833 *	Memory Cards	896	896	702	702	88.89 %	2,028	66.04 %	3,071
Mesquite Groves Aquatic Center 15622 *	Memory Cards	889	889	741	741	86.50 %	2,123	68.00 %	3,122
Oasis Community Church 12913 *	Memory Cards	1,451	1,451	1,421	292	78.08 %	812	64.70 %	1,255
James W Rice School 14820 *	Memory Cards	305	305	255	255	64.71 %	675	63.86 %	1,057
Gateway Fellowship Chr/Sbc 14864 *	Memory Cards	1,928	1,928	929	929	56.73 %	2,385	67.76 %	3,520
Memorial Presbyterian Church 11316 *	Memory Cards	1,466	1,466	1,249	1,249	50.92 %	3,134	63.99 %	4,898
Asante Library 15723 *	Memory Cards	978	979	878	878	35.88 %	2,071	64.24 %	3,224
Holiday Park School 10574 *	Memory Cards	283	283	243	243	30.86 %	561	60.39 %	929
Youngtown Clubhouse 12156 *	Memory Cards	929	928	776	776	26.68 %	1,759	60.53 %	2,906
Biltmore Fashion Park 15667 *	Central Count	1,229	1,228	Central Count	928	25.75 %	2,095	62.72 %	3,340
Community Of Christ Church 10756 *	Memory Cards	859	859	784	758	23.75 %	1,696	61.49 %	2,758
Islamic Center Scottsdale 15170 *	Memory Cards	1,466	1,466	1,228	1,228	20.77 %	2,711	60.77 %	4,461
Islamic Center East Valley 15717 *	Memory Cards	1,049	1,049	913	913	19.93 %	2,008	62.97 %	3,189
Cactus High School 11363 *	Central Count	1,493	1,490	Central Count	1,358	19.37 %	2,979	62.80 %	4,744
Black Mountain Baptist Church 14509 *	Central Count	807	807	Central Count	758	18.47 %	1,656	61.86 %	2,677
Messinger Mortuary 14396 *	Central Count	1,489	1,489	Central Count	1,150	17.83 %	2,505	60.74 %	4,124
Maryvale Bridge UMC 10074 *	Memory Cards	403	403	366	366	07.38 %	759	59.25 %	1,281

Vote Center	County Source Report (BLUE Printer Problem Site as per M.C.	County Reported Check-in	County Reported Ballots	Cast Vote Record Total Votes (Official Record)	Total Ballots Cast A & B	% of Ballots Rejected/Total Cast	Total Ballots Rejected A & B (w/out Ballot Review)	% of Ballots Rejected/Total Inserted	Total Ballots Inserted A & B
	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
Cortez High School (#205) 12814 *	Central Count	493	493	Central Count	397	205.29 %	815	60.64 %	1,344
Victory Lutheran Church 11349 *	Memory Cards	1,371	1,370	895	895	201.79 %	1,806	61.10 %	2,956
Palm Lane School 10248 *	Memory Cards	236	236	205	205	201.46 %	413	62.96 %	656
Westwood Elementary School 11307 *	Memory Cards	828	827	861	903	98.56 %	1,793	59.67 %	3,005
Dist 7 Community Service Center 13856 *	Memory Cards	224	224	190	190	98.42 %	377	60.61 %	622
Dove Of The Desert UMC 13869 *	Memory Cards	1,714	1,707	1,403	1,403	96.58 %	2,758	57.36 %	4,808
LakesRecCtr @ WestbrookVillage 12187 *	Memory Cards	1,204	1,204	983	993	96.27 %	1,949	60.01 %	3,248
Trinity Bible Church of SCW 14584 *	Central Count	450	449	Central Count	362	93.09 %	699	56.37 %	1,240
Venue 8600 15599 *	Central Count	1,286	1,286	Central Count	1,171	86.93 %	2,189	56.83 %	3,852
Aire Libre School 10619 *	Memory Cards	452	452	388	388	86.86 %	725	58.61 %	1,237
Nozomi Aquatic Center 15494 *	Memory Cards	879	879	851	851	84.72 %	1,572	58.48 %	2,688
Aguila Fire Department 14489 *	Memory Cards	63	62	50	50	84.00 %	92	51.69 %	178
Cottonwood Country Club 12407 *	Memory Cards	502	502	480	480	73.13 %	831	55.62 %	1,494
Community of Christ 14168 *	Memory Cards	1,062	1,062	923	923	70.21 %	1,571	56.76 %	2,768
Mountain Park Health Center 15680 *	Central Count	1,328	1,328	Central Count	1,015	68.28 %	1,708	55.31 %	3,088
Wesley Community Center 12104 *	Central Count	184	176	Central Count	163	64.42 %	268	55.72 %	481
Mountain Park Maryvale Clinic 15584 *	Memory Cards	329	329	295	295	162.71 %	480	63.32 %	758
Kaka Village Comm Center 13481 *	Memory Cards	20	20	16	16	62.50 %	26	59.09 %	44
Radiant Church Sun City 10371 *	Memory Cards	1,392	1,390	1,232	1,232	55.36 %	1,914	51.63 %	3,707
South Phoenix Baptist Church 10611 *	Memory Cards	596	596	551	551	53.18 %	844	52.62 %	1,604
Fowler School 10403 *	Central Count	717	715	Central Count	653	50.38 %	982	53.75 %	1,827
St Margarets Catholic Church 11054 *	Memory Cards	651	651	594	594	47.81 %	878	54.88 %	1,600
Church of Jesus Christ LDS JOMAX 15592 *	Memory Cards	1,553	1,553	1,400	1,400	37.29 %	1,922	51.72 %	3,716
Madison Baptist Church 12807 *	Central Count	1,104	1,104	Central Count	983	31.94 %	1,297	50.78 %	2,554
Mountain View School 15737 *	Memory Cards	958	958	879	879	28.90 %	1,133	51.34 %	2,207
Chandler Bible Church 13836 *	Memory Cards	1,472	1,472	1,251	1,251	24.70 %	1,560	49.37 %	3,160
Flite Goodyear 15705 *	Memory Cards	268	267	249	249	24.50 %	310	46.41 %	668
Compass Church 15355 *	Memory Cards	1,022	1,022	912	912	24.34 %	1,134	48.59 %	2,334
Youngker High School 15322 *	Memory Cards	852	852	781	781	22.28 %	955	49.64 %	1,924
Church Of Jesus Christ LDS Lake Shore*	Central Count	1,480	1,478	Central Count	1,378	20.46 %	1,660	49.24 %	3,371
Sheriff Posse of SCW 15730*	Memory Cards	933	933	875	875	20.46 %	1,054	47.84 %	2,203
Desert Hills Community Church 12362 *	Central Count / Commingled Site*	1,624	1,623	Central Count	1,556	19.99 %	1,867	48.16 %	3,877

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	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
Academies at South Mtn 12716 *	Central Count	591	591	Central Count	479	19.83 %	574	48.24 %	1,190
Litchfield Park First Baptist Ch 11682 *	Memory Cards	918	918	826	826	19.25 %	985	45.16 %	2,181
Laveen Elem Sch Dist 13770 *	Memory Cards	901	901	816	816	18.75 %	969	47.22 %	2,052
Church Of Jesus Christ Of LDS Union Hills 14326 *	Memory Cards	1,861	1,861	1,750	1,750	18.57 %	2,075	49.78 %	4,168
Church Of Jesus Christ Of LDS Southern 15216 *	Central Count	1,834	1,834	Central Count	1,770	16.84 %	2,068	48.24 %	4,287
Dream City Church Phoenix 12800 *	Memory Cards	1,069	1,066	953	953	16.68 %	1,112	49.09 %	2,265
Estrella Mnt School/Goodyear 12234 *	Memory Cards	496	496	487	487	15.40 %	562	49.91 %	1,126
Fountain Hills Community Center 14400 *	Memory Cards	1,688	1,688	1,492	1,492	11.33 %	1,661	45.99 %	3,612
Deer Valley USD Office 11462 *	Memory Cards	552	551	516	516	09.69 %	566	46.32 %	1,222
Sunland Village East 12374 *	Memory Cards	1,731	1,730	1,539	1,539	09.23 %	1,681	46.17 %	3,641
Mount Calvary Baptist Church 11109 *	Memory Cards	1,077	1,077	954	954	06.71 %	1,018	46.02 %	2,212
Eldorado Park Community Center 11564 *	Memory Cards	1,402	1,401	1,243	1,246	04.09 %	1,297	46.04 %	2,817
Wickenburg Community Center 11322 *	Memory Cards	1,000	1,000	795	795	02.89 %	818	46.35 %	1,765
Charles W Harris School 10958 *	Memory Cards	399	399	374	374	00.27 %	375	43.30 %	866
Scottsdale Worship Center 10215	Central Count	1,778	1,775	Central Count	1,712	99.36 %	1,701	43.75 %	3,888
Skyway Church- West Valley 15022 *	Memory Cards	684	684	652	652	96.63 %	630	45.72 %	1,378
Love Of Christ Lutheran Chr 13196 *	Central Count	1,596	1,594	Central Count	1,487	96.44 %	1,434	41.66 %	3,442
Gilbert Freestone Rec Center 14669 *	Memory Cards	1,658	1,658	1,503	1,503	93.08 %	1,399	43.98 %	3,181
Happy Trails Resort 12154 *	Memory Cards	1,900	1,900	1,743	1,743	90.99 %	1,586	41.53 %	3,819
Mountain View Park Comm Ctr 10982 *	Central Count	1,586	1,586	Central Count	1,414	89.89 %	1,271	41.63 %	3,053
Shepherd Of The Hills UMC 10287 *	Memory Cards	1,222	1,222	1,166	1,166	89.02 %	1,038	40.20 %	2,582
Mesa Baptist Church 12082 *	Memory Cards	2,405	2,405	2,318	2,318	87.96 %	2,039	42.42 %	4,807
Central Christian Church/Mesa 11901 *	Memory Cards	1,711	1,707	1,687	1,687	87.08 %	1,469	41.50 %	3,540
Camelback Christian Church 10360 *	Memory Cards	950	950	950	950	86.42 %	821	42.28 %	1,942
North Scottsdale UMC 12219 *	Memory Cards	1,292	1,292	1,270	1,270	84.49 %	1,073	40.49 %	2,650
David Crockett School 11380 *	Central Count	919	917	Central Count	834	81.53 %	680	39.56 %	1,719
Grace In The Desert Adv Ch 11988 *	Central Count	1,361	1,359	Central Count	1,266	79.54 %	1,007	39.29 %	2,563
Ascension Lutheran Church 11244 *	Memory Cards	1,023	1,023	1,003	913	79.08 %	722	38.02 %	1,899
Tomahawk School 10692 *	Memory Cards	627	627	614	614	77.85 %	478	37.49 %	1,275
McQueen Park Activity Center 13939 *	Memory Cards	1,105	1,105	1,011	1,011	77.84 %	787	40.63 %	1,937
Standing Stones Comm Ch 15405 *	Memory Cards	1,625	1,625	1,525	1,525	77.84 %	1,187	39.44 %	3,010
University Presbyterian Church 10323 *	Memory Cards	649	649	624	624	77.40 %	483	38.83 %	1,244

Vote Center	County Source Report (BLUE Printer Problem Site as per M.C.	County Reported Check-in	County Reported Ballots	Cast Vote Record Total Votes (Official Record)	Total Ballots Cast A & B	% of Ballots Rejected/Total Cast	Total Ballots Rejected A & B (w/out Ballot Review)	% of Ballots Rejected/Total Inserted	Total Ballots Inserted A & B
	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
Outlets at Anthem 15607 *	Memory Cards	1,929	1,929	1,863	1,863	75.95 %	1,415	38.26 %	3,698
Progressive Baptist Church 11145	Central Count	815	815	Central Count	803	74.22 %	596	36.54 %	1,631
Tumbleweed Recreation Center 15418 *	Memory Cards	1,350	1,351	1,308	1,308	71.56 %	936	37.73 %	2,481
Scottsdale Elks Ldg Pboe #2148 11966 *	Memory Cards	1,554	1,553	1,520	1,520	70.26 %	1,068	36.74 %	2,907
Christian Community Church 11770 *	Central Count	747	748	Central Count	758	70.05 %	531	34.06 %	1,559
Union ESD Office 11289 *	Memory Cards	725	725	707	707	69.45 %	491	36.05 %	1,362
Murphy ESD Education Center 15616 *	Memory Cards	395	395	373	373	69.17 %	258	34.63 %	745
St Johns Lutheran Church 10440 *	Memory Cards	773	773	742	742	69.00 %	512	34.09 %	1,502
Mountain Vista Club/Vistancia 15511 *	Memory Cards	1,507	1,504	1,417	1,417	68.67 %	973	35.76 %	2,721
Church of Jesus Christ LDS Greenfield 15090 *	Memory Cards	1,749	1,749	1,698	1,698	67.49 %	1,146	37.23 %	3,078
Cave Creek Town Hall 12226 *	Memory Cards	1,021	1,021	996	996	66.47 %	662	33.88 %	1,954
Peace Lutheran Church 13888 *	Memory Cards	1,460	1,461	1,428	1,043	66.25 %	691	28.92 %	2,389
Church Of Jesus Christ LDS Gilbert 15268 *	Central Count	1,506	1,506	Central Count	1,471	64.04 %	942	35.61 %	2,645
Sunset Canyon School 14814 *	Memory Cards	1,071	1,071	993	993	63.44 %	630	35.10 %	1,795
Hi-Way Baptist Chuch 14286 *	Memory Cards	1,536	1,535	1,535	1,535	61.17 %	939	33.61 %	2,794
Sun Lakes UMC 12938 *	Memory Cards	1,500	1,500	1,377	1,377	60.64 %	835	32.84 %	2,543
Holy Trinity GOC 11868 *	Memory Cards	971	971	943	943	57.69 %	544	31.48 %	1,728
Dysart Community Center 15203 *	Memory Cards	428	428	418	418	54.55 %	228	29.27 %	779
Pendergast ESD Office 10055 *	Memory Cards	1,560	1,560	1,428	1,428	52.80 %	754	30.48 %	2,474
Estrella Foothills High School 14506 *	Memory Cards	1,120	1,120	1,086	1,086	50.28 %	546	29.29 %	1,864
University Lutheran Church 11063 *	Memory Cards	638	638	605	605	50.25 %	304	29.80 %	1,020
Laveen Baptist Church 11622 *	Memory Cards	1,386	1,386	1,330	1,330	50.00 %	665	29.52 %	2,253
Escalante Community Center Tempe 12165 *	Memory Cards	605	605	565	776	48.71 %	378	33.60 %	1,125
All Saints Lutheran Church 11820 *	Central Count	1,582	1,580	Central Count	1,564	46.29 %	724	27.71 %	2,613
Faith Lutheran Church 12773 *	Memory Cards	1,309	1,309	1,255	1,255	45.10 %	566	26.79 %	2,113
Church Of Jesus Christ LDS Buckeye 15595 *	* Central Count / Centralized Site	661	661	Central Count	688	43.31 %	298	26.03 %	1,145
Chandler USD Office 10003 *	Memory Cards	857	857	844	844	39.81 %	336	25.06 %	1,341
Maricopa County Cooperative Ext 11621 *	Memory Cards	576	576	565	565	38.41 %	217	24.44 %	888
San Tan Village Mall 15664 *	Central Count	1,416	1,415	Central Count	1,392	38.29 %	533	54.95 %	970
Lifeway Church 14884 *	Memory Cards	1,155	1,155	1,142	1,142	38.18 %	436	24.54 %	1,777
Perry Branch Library/Gilbert 15308 *	Memory Cards	1,536	1,536	1,536	1,536	37.57 %	577	24.55 %	2,350
Valor Christian Center 15567 *	Memory Cards	1,518	1,518	1,477	1,477	35.68 %	527	23.28 %	2,264

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	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
Dream City Church Scottsdale 15151 *	Central Count	1,663	1,663	Central Count	1,656	35.63 %	590	23.84 %	2,475
Desert Foothills United Meth Ch 13953 *	Memory Cards	613	613	600	600	35.17 %	211	23.26 %	907
Grace United Methodist Church 11634 *	Central Count	1,423	1,401	Central Count	1,392	34.34 %	478	21.82 %	2,191
Golden Gate Community Center 11593 *	Memory Cards	637	637	628	628	34.08 %	214	22.36 %	957
Nadaburg School District Office 15282 *	Central Count	745	745	Central Count	746	33.51 %	250	21.91 %	1,141
Footprint Center 15736 *	Memory Cards	605	605	586	586	32.94 %	193	22.39 %	862
Sunrise United Methodist Church 12809 *	Memory Cards	1,249	1,249	1,249	1,249	32.83 %	410	22.19 %	1,848
Phoenix Laestadian Luth Ch 12449 *	Memory Cards	1,575	1,575	1,573	1,573	31.60 %	497	20.92 %	2,376
Queen Creek Library 15550 *	Central Count	2,259	2,255	Central Count	2,194	30.95 %	679	21.08 %	3,221
Buckeye Fire Station 704 15621 *	Memory Cards	503	503	496	496	29.64 %	147	20.28 %	725
Horizon Community Center 13859 *	Memory Cards	2,599	2,596	2,587	2,587	28.91 %	748	19.62 %	3,812
Bridgeway Community Church 14295 *	Memory Cards	1,560	1,560	1,529	1,528	28.80 %	440	19.56 %	2,250
Marley Park 15349 *	Memory Cards	1,780	1,780	1,752	1,752	26.54 %	465	18.09 %	2,571
Praise And Worship Center 15523	Central Count	1,253	1,253	Central Count	1,242	25.60 %	318	18.09 %	1,758
Desert Oasis Aquatic Center 13838 *	Memory Cards	1,015	1,015	985	985	25.28 %	249	17.98 %	1,385
Paradise Valley Town Hall 13977	Memory Cards	993	993	984	984	25.10 %	247	17.11 %	1,444
Velda Rose UMC 11186 *	Memory Cards	1,684	1,684	1,656	1,656	24.21 %	401	16.52 %	2,428
Phoenix Union HS Dist 14187 *	Memory Cards	862	862	852	852	23.47 %	200	17.12 %	1,168
Surprise City Hall 14239 *	Memory Cards	1,850	1,850	1,823	1,823	22.98 %	419	15.42 %	2,718
Copper Hills Church/ Westwing 15558 *	Memory Cards	1,811	1,810	1,786	1,786	22.68 %	405	15.87 %	2,552
Dayspring United Methodist Church 11884 *	Memory Cards	1,587	1,587	1,573	1,573	21.36 %	336	15.60 %	2,154
Living Water Lutheran Church 14773 *	Memory Cards	923	923	920	920	20.87 %	192	14.95 %	1,284
The Refinery Christian Church 15735 *	Memory Cards	869	869	859	859	20.26 %	174	14.33 %	1,214
Trilogy @ Power Ranch 14134 *	Memory Cards	1,867	1,867	1,842	1,842	19.38 %	357	13.92 %	2,565
Washington ESD Office 14138 *	Memory Cards	746	745	742	742	19.27 %	143	14.17 %	1,009
Deer Valley Lutheran Church 12740 *	Memory Cards	1,089	1,089	1,069	1,069	17.40 %	186	13.07 %	1,423
Glendale M and Ministry Ctr 10381 *	Memory Cards	444	444	443	443	17.16 %	76	11.91 %	638
Chandler Nature Center 15486 *	Memory Cards	1,870	1,870	1,862	1,862	16.38 %	305	14.94 %	2,041
San Lucy Dist Admin Bldg 13851	Memory Cards	37	37	37	37	16.22 %	6	12.00 %	50
Save the Family 15726 *	Central Count	804	804	Central Count	762	15.35 %	117	11.21 %	1,044
Buckeye City Hall 14044 *	Memory Cards	1,149	1,150	1,148	1,146	14.22 %	163	10.67 %	1,527
Copper Canyon School 13237 *	Memory Cards	1,556	1,556	1,470	1,470	13.47 %	198	10.12 %	1,957

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Dist 6 Community Service Center 12215 *	Memory Cards	138	138	138	138	13.04 %	18	10.11 %	178
Shadow Rock Church 12771 *	Memory Cards	945	945	944	944	10.70 %	101	8.34 %	1,211
Envision Community Center 15682 *	Memory Cards	1,284	1,284	1,243	1,243	9.90 %	123	7.81 %	1,574
Florence Ely Nelson Desert Park 14227 *	Memory Cards	1,460	1,460	1,428	1,428	9.59 %	137	7.61 %	1,800
El Mirage City Hall 12350 *	Memory Cards	1,184	1,184	1,167	1,167	8.65 %	101	7.06 %	1,430
Litchfield Support Svcs Bldg A 15578 *	Memory Cards	1,179	1,180	1,170	1,170	8.46 %	99	6.73 %	1,471
Goodyear City Hall 12921 *	Memory Cards	443	443	443	443	8.35 %	37	7.14 %	518
Phoenix Art Museum 15729 *	Memory Cards	1,017	1,017	1,017	1,017	6.78 %	69	5.82 %	1,186
West Valley UUC 15136 *	Memory Cards	711	710	710	710	6.76 %	48	5.47 %	877
Christ the Redeemer Luth Ch 12667 *	Central Count	795	793	Central Count	793	6.05 %	48	4.77 %	1,006
St Andrew Lutheran Church 11092 *	Memory Cards	1,207	1,207	1,201	1,201	5.66 %	68	4.56 %	1,492
Living Word Bible Church Ahw 14988 *	Memory Cards	1,832	1,832	1,826	1,526	5.57 %	85	3.92 %	2,168
Knights of Pythias Lodge 15359 *	Central Count	398	398	Central Count	396	5.56 %	22	4.61 %	477
Second Ch Of Christ Scientist 11731 *	Memory Cards	905	905	905	905	5.19 %	47	4.39 %	1,071
Tolleson Council Chambers 15429 *	Memory Cards	914	914	906	906	5.19 %	47	3.75 %	1,255
Surprise Senior Center 11007 *	Memory Cards	1,339	1,331	1,320	1,320	5.08 %	67	4.15 %	1,616
Pyle Adult Recreation Center 11072 *	Memory Cards	1,161	1,160	1,145	1,145	5.07 %	58	4.20 %	1,381
Brophy College Prep 12897 *	Memory Cards	665	665	663	663	4.98 %	33	3.94 %	838
Loyal Order of the Moose Lodge 10238 *	Memory Cards	738	738	738	738	4.74 %	35	4.10 %	854
North Valley Free Will Bap Ch 14098 *	Memory Cards	871	871	866	866	4.73 %	41	3.78 %	1,084
Glendale Christian Church 10098 *	Memory Cards	754	753	750	750	4.67 %	35	3.98 %	880
IBEW Local 640 Electrical Wrk 11651 *	Memory Cards	345	345	343	343	4.66 %	16	3.86 %	415
Fort McDowell Indian Comm 12015 *	Memory Cards	635	635	628	628	4.30 %	27	3.56 %	759
Glendale Comm College 10378 *	Central Count	1,383	1,378	Central Count	1,343	4.10 %	55	3.28 %	1,679
Mesa Convention Center 15634 *	Memory Cards	1,743	1,742	1,740	1,740	3.79 %	66	3.18 %	2,076
Islamic Community Ctr of Phx 11449 *	Central Count	723	723	Central Count	712	3.51 %	25	2.90 %	863
Vineyard Church Of North Phx 14644 *	Memory Cards	1,182	1,181	1,172	1,172	3.41 %	40	2.87 %	1,393
Mesa Comm College Red Mtn 14202 *	Memory Cards	1,729	1,729	1,720	1,720	3.31 %	57	2.83 %	2,015
Palm Ridge Recreation Center 13302 *	Central Count	786	786	Central Count	772	3.11 %	24	2.73 %	878
Cartwright Sch Dist Annex 13694 *	Memory Cards	397	397	397	397	3.02 %	12	2.48 %	484
Estrella Mountain Comm College 14218 *	Central Count	1,553	1,545	Central Count	1,534	2.93 %	45	2.27 %	1,979
Avondale City Hall 14886 *	Memory Cards	1,518	1,517	1,501	1,501	2.93 %	44	2.26 %	1,950

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	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
Chandler City Hall 15551 *	Memory Cards	1,426	1,426	1,406	1,406	2.49 %	35	2.09 %	1,673
First Baptist Church Chandler 15277 *	Memory Cards	1,483	1,484	1,472	1,472	2.45 %	36	3.26 %	1,103
SE Regional Library Gilbert 10443	Memory Cards	1,953	1,952	1,934	1,934	2.43 %	47	2.05 %	2,296
Paradise Valley Comm College 12103 *	Memory Cards	2,205	2,205	2,172	2,172	2.26 %	49	1.90 %	2,579
Church Of The Beatitudes 13020 *	Memory Cards	1,269	1,269	1,265	1,265	2.21 %	28	1.80 %	1,554
Central Christian Church/Gilbert 15407 *	Memory Cards	1,342	1,342	1,340	1,340	2.09 %	28	1.83 %	1,529
Church Of Jesus Christ LDS Mesa Maricopa Stake 10895 *	Memory Cards	994	994	978	978	2.04 %	20	1.76 %	1,138
ASU Sun Devil Fitness Center 15566 *	Central Count	1,538	1,528	Central Count	1,497	1.87 %	28	1.62 %	1,727
Altrain Medical and Dental Ctr 15728 *	Central Count	595	595	Central Count	590	1.86 %	11	1.60 %	686
Carefree Town Council Center 15585 *	Memory Cards	1,270	1,270	1,261	1,261	1.82 %	23	1.50 %	1,536
Spirit Of Grace Lutheran Church 13927 *	Memory Cards	1,089	1,089	1,088	1,088	1.75 %	19	1.45 %	1,308
Tempe History Museum 15612 *	Memory Cards	1,222	1,222	1,161	1,161	1.64 %	19	1.28 %	1,481
Chandler United Methodist Church 15416 *	Memory Cards	1,296	1,293	1,292	1,292	1.63 %	21	1.40 %	1,501
Church At Litchfield Park 10647 *	Memory Cards	1,565	1,564	1,552	1,552	1.61 %	25	1.39 %	1,793
Gilbert Presbyterian Church 12354 *	Central Count	1,311	1,311	Central Count	1,313	1.52 %	20	1.34 %	1,490
ASU West Campus 15105 *	Memory Cards	1,243	1,243	1,241	1,241	1.45 %	18	1.22 %	1,477
Communiversity QC 15675 *	Central Count	1,959	1,959	Central Count	1,955	1.38 %	27	1.18 %	2,291
Indian Bend Wash Visitor Ctr 11490 *	Memory Cards	756	756	754	754	1.06 %	8	0.88 %	907
Goodyear City Hall (NEW) 15724 *	Memory Cards	1,046	1,045	1,039	1,039	1.06 %	11	0.85 %	1,298
Granada West Elementary School 12039 *	Memory Cards	479	479	479	479	1.04 %	5	0.89 %	560
Gilbert Public Works N Ctr 15720 *	Memory Cards	1,226	1,226	1,226	1,226	0.98 %	12	0.87 %	1,378
Chandler Gilbert Comm College 13905 *	Memory Cards	1,589	1,589	1,589	1,589	0.94 %	15	0.82 %	1,837
Burton Barr Library 11405 *	Memory Cards	1,167	1,167	1,167	1,166	0.69 %	8	0.60 %	1,333
ASU Downtown Campus 15719 *	Memory Cards	727	727	711	711	0.56 %	4	0.48 %	827
GCC North Chinle Bldg 14225 *	Memory Cards	2,087	2,088	2,088	2,088	0.53 %	11	0.46 %	2,390
El Tianguis Mercado 15521 *	Memory Cards	1,134	1,134	1,120	1,120	0.27 %	3	0.23 %	1,307
Goelet A.C. Beuf Comm Ctr 15144 *	Memory Cards	1,513	1,513	1,500	1,500	0.27 %	4	0.23 %	1,761
Tempe Mountain Park Hlth Ctr 15695 *	Memory Cards	776	776	775	775	0.26 %	2	0.24 %	840
ASU Polytechnic Campus 15642 *	Memory Cards	1,886	1,886	1,885	1,884	0.21 %	4	0.19 %	2,066
Liberty ESD Office 15469 *	Memory Cards	487	487	487	487	0.21 %	1	0.18 %	544
Horizon Presbyterian Church 13877 *	Memory Cards	1,391	1,391	1,382	1,382	0.14 %	2	0.13 %	1,597

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	Source: Exhibit 11 from Maricopa County			Source: CVR Records		Source: Tabulator System Log Files			
TOTAL		248,240	248,072	183,867	229,781	8.39 %	180,128	9.00 %	461,826

CENTRAL COUNT ELECTION DAY	VOTING CENTER SCANS	V.C. M.C. Total Check-in	V.C. M.C. Total Ballots	Cast Vote Record Total Votes	44 V. CENTER TOTALS FROM ICP SYS LOGS
VOTING CENTER RESCANS					
HI-PRO 1 ED	CENTRAL COUNT	11756			
HI-PRO 2 ED	CENTRAL COUNT	11969			
HI-PRO 3 ED	CENTRAL COUNT	12558			
HI-PRO 4 ED	CENTRAL COUNT	10177			
TOTALS FROM 44 VOTING CENTERS				46460	44,775

EXHIBIT C

Number of check-ins and ballots reported, by vote center, and whether the vote center results were used ("Memory Cards") or not ("Central Count"). The two vote centers which commingled cast ballots and unscannable ("Door 3") ballots are indicated.

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Academies at South Mtn 12716 *	591	589	-2	Central Count
Aguila Fire Department 14489 *	63	62	-1	Memory Cards
Aire Libre School 10619 *	452	452	0	Memory Cards
All Saints Lutheran Church 11820 *	1,582	1580	-2	Central Count
Altrain Medical and Dental Center 15728 *	595	595	0	Central Count
Asante Library 15723 *	978	979	1	Memory Cards
Ascension Lutheran Church 11244 *	1,023	1023	0	Memory Cards
ASU Downtown Campus 15719 *	727	727	0	Memory Cards
ASU Polytechnic Campus 15642 *	1,886	1886	0	Memory Cards
ASU Sun Devil Fitness Center 15566 *	1,538	1528	-10	Central Count
ASU West Campus 15105 *	1,243	1243	0	Memory Cards
Avondale City Hall 14886 *	1,518	1517	-1	Memory Cards
Biltmore Fashion Park 15667 *	1,229	1228	-1	Central Count
Black Mountain Baptist Church 14509 *	807	807	0	Central Count
Bridgeway Community Church 14295 *	1,560	1560	0	Memory Cards
Brophy College Prep 12897 *	665	665	0	Memory Cards

Buckeye City Hall 14044 *	1,149	1150	1	Memory Cards
Buckeye Fire Station 704 15621 *	503	503	0	Memory Cards
Burton Barr Library 11405 *	1,167	1167	0	Memory Cards
Cactus High School 11363 *	1,493	1490	-3	Central Count
Calvary Free Lutheran Ch 14432 *	1,275	1275	0	Memory Cards
Camelback Christian Church 10360 *	950	950	0	Memory Cards
Carefree Town Council Center 15585 *	1,270	1270	0	Memory Cards
Cartwright Sch Dist Annex 13694 *	397	397	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Cave Creek Town Hall 12226 *	1,021	1021	0	Memory Cards
Central Christian Church/Gilbert 15407 *	1,342	1342	0	Memory Cards
Central Christian Church/Mesa 11901 *	1,711	1707	-4	Memory Cards
Chandler Bible Church 13836 *	1,472	1472	0	Memory Cards
Chandler City Hall 15551 *	1,426	1426	0	Memory Cards
Chandler Gilbert Comm College 13905 *	1,589	1589	0	Memory Cards
Chandler Nature Center 15486 *	1,870	1870	0	Memory Cards
Chandler United Methodist Church 15416 *	1,296	1293	-3	Memory Cards
Chandler USD Office 10003 *	857	857	0	Memory Cards
Charles W Harris School 10958 *	399	399	0	Memory Cards

Christ the Redeemer Luth Ch 12667 *	795	793	-2	Central Count
Christian Community Church *	747	748	1	Central Count
Church At Litchfield Park 10647 *	1,565	1564	-1	Memory Cards
Church of Jesus Christ LDS 15090 *	1,749	1749	0	Memory Cards
Church of Jesus Christ LDS 15592 *	1,553	1553	0	Memory Cards
Church Of Jesus Christ Of LDS 10895 *	994	994	0	Memory Cards
Church Of Jesus Christ Of LDS 14326 *	1,861	1861	0	Memory Cards
Church Of Jesus Christ Of LDS 14357 *	1,480	1478	-2	Central Count
Church Of Jesus Christ Of LDS 15216 *	1,834	1834	0	Central Count
Church Of Jesus Christ Of LDS 15268 *	1,506	1506	0	Central Count
Church Of Jesus Christ Of LDS 15595 *	661	661	0	Central Count / Comingled Site
Church Of The Beatitudes 13020 *	1,269	1269	0	Memory Cards
Community of Christ 14168 *	1,062	1062	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Community Of Christ Church 10756 *	859	859	0	Memory Cards
Communiversity QC 15675 *	1,959	1959	0	Central Count
Compass Church 15355 *	1,022	1022	0	Memory Cards
Copper Canyon School 13237 *	1,556	1556	0	Memory Cards
Copper Hills Church/ Westwing 15558 *	1,811	1810	-1	Memory Cards
Cortez High School (#205) 12814 *	493	493	0	Central Count

Cottonwood Country Club 12407 *	502	502	0	Memory Cards
David Crockett School 11380 *	919	917	-2	Central Count
Dayspring United Methodist Church 11884 *	1,587	1587	0	Memory Cards
Deer Valley Airport 12875 *	1,360	1354	-6	Memory Cards
Deer Valley Lutheran Church 12740 *	1,089	1089	0	Memory Cards
Deer Valley USD Office 11462 *	552	551	-1	Memory Cards
Desert Christian Fellowship 12662 *	1,040	1027	-13	Memory Cards
Desert Foothills United Meth Ch 13953 *	613	613	0	Memory Cards
Desert Hills Community Church 12362 *	1,624	1623	-1	Central Count / Comingled Site
Desert Oasis Aquatic Center 13838 *	1,015	1015	0	Memory Cards
Dist 6 Community Service Center 12215 *	138	138	0	Memory Cards
Dist 7 Community Service Center 13856 *	224	224	0	Memory Cards
Dove Of The Desert UMC 13869 *	1,714	1707	-7	Memory Cards
Dream City Church Phoenix 12800 *	1,069	1066	-3	Memory Cards
Dream City Church Scottsdale 15151 *	1,663	1663	0	Central Count
Dysart Community Center 15203 *	428	428	0	Memory Cards
El Mirage City Hall 12350 *	1,184	1184	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
El Tianguis Mercado 15521 *	1,134	1134	0	Memory Cards

Eldorado Park Community Center 11564 *	1,402	1401	-1	Memory Cards
Envision Community Center 15682 *	1,284	1284	0	Memory Cards
Escalante Community Center Tempe 12165 *	605	605	0	Memory Cards
Estrella Foothills High School 14506 *	1,120	1120	0	Memory Cards
Estrella Mnt School/Goodyear 12234 *	496	496	0	Memory Cards
Estrella Mountain Comm College 14218 *	1,553	1545	-8	Central Count
Faith Baptist Church 10492 *	1,011	1011	0	Memory Cards
Faith Lutheran Church 12773 *	1,309	1309	0	Memory Cards
First Baptist Church Chandler 15277 *	1,483	1484	1	Memory Cards
First UMC of Gilbert 11932 *	1,165	1165	0	Memory Cards
Flite Goodyear 15705 *	268	267	-1	Memory Cards
Florence Ely Nelson Desert Park 14227 *	1,460	1460	0	Memory Cards
Footprint Center *	605	605	0	Memory Cards
Fort McDowell Indian Comm 12015 *	635	635	0	Memory Cards
Fountain Hills Community Center 14400 *	1,688	1688	0	Memory Cards
Fowler School 10403 *	717	715	-2	Central Count
Gateway Fellowship Chr/Sbc 14864 *	1,928	1928	0	Memory Cards
GCC North Chinle Bldg 14225 *	2,087	2088	1	Memory Cards
Gila Bend School Dist 10438 *	136	136	0	Memory Cards
Gilbert Freestone Rec Center 14669 *	1,658	1658	0	Memory Cards
Gilbert Presbyterian Church 12354 *	1,311	1311	0	Central Count

Gilbert Public Works N Ctr 15720 *	1,226	1226	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Glendale Christian Church 10098 *	754	753	-1	Memory Cards
Glendale Comm College 10378 *	1,383	1378	-5	Central Count
Glendale M and Ministry Ctr 10381 *	444	444	0	Memory Cards
Goelet A.C. Beuf Comm Ctr 15144 *	1,513	1513	0	Memory Cards
Golden Gate Community Center 11593 *	637	637	0	Memory Cards
Goodyear City Hall (NEW) 15724 *	1,046	1045	-1	Memory Cards
Goodyear City Hall 12921 *	443	443	0	Memory Cards
Grace In The Desert Adv Ch 11988 *	1,361	1359	-2	Central Count
Grace United Methodist Church 11634 *	1,423	1401	-22	Central Count
Granada West Elementary School 12039 *	479	479	0	Memory Cards
Happy Trails Resort 12154 *	1,900	1900	0	Memory Cards
Hi-Way Baptist Chuch 14286 *	1,536	1535	-1	Memory Cards
Holiday Park School 10574 *	283	283	0	Memory Cards
Holy Trinity GOC11868 *	971	971	0	Memory Cards
Horizon Community Center 13859 *	2,599	2596	-3	Memory Cards
Horizon Presbyterian Church 13877 *	1,391	1391	0	Memory Cards
IBEW Local 640 Electrical Wrk 11651 *	345	345	0	Memory Cards

Indian Bend Wash Visitor Ctr 11490 *	756	756	0	Memory Cards
Islamic Center East Valley 15717 *	1,049	1049	0	Memory Cards
Islamic Center Scottsdale 15170 *	1,466	1466	0	Memory Cards
Islamic Community Ctr of Phx 11449 *	723	723	0	Central Count
James W Rice School 14820 *	305	305	0	Memory Cards
Journey Church 15731 *	1,503	1499	-4	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Kaka Village Comm Center 13481 *	20	20	0	Memory Cards
Knights of Pythias Lodge 15359 *	398	398	0	Central Count
LakesRecCtr @ WestbrookVillage 12187 *	1,204	1204	0	Memory Cards
Laveen Baptist Church 11622 *	1,386	1386	0	Memory Cards
Laveen Elem Sch Dist 13770 *	901	901	0	Memory Cards
Liberty ESD Office 15469 *	487	487	0	Memory Cards
Lifeway Church 14884 *	1,155	1155	0	Memory Cards
Light And Life Church 12903 *	989	986	-3	Central Count
Litchfield Park First Baptist Ch 11682 *	918	918	0	Memory Cards
Litchfield Support Svcs Bldg A 15578 *	1,179	1180	1	Memory Cards
Living Water Lutheran Church 14773 *	923	923	0	Memory Cards
Living Word Bible Church Ahw 14988 *	1,832	1832	0	Memory Cards
Love Of Christ Lutheran Chr 13196 *	1,596	1594	-2	Central Count

Loyal Order of the Moose Lodge 10238 *	738	738	0	Memory Cards
Madison Baptist Church 12807 *	1,104	1104	0	Central Count
Maricopa County Cooperative Ext 11621 *	576	576	0	Memory Cards
Marley Park 15349 *	1,780	1780	0	Memory Cards
Maryvale Bridge UMC 10074 *	403	403	0	Memory Cards
McQueen Park Activity Center 13939 *	1,105	1105	0	Memory Cards
Memorial Presbyterian Church 11316 *	1,466	1466	0	Memory Cards
Mesa Baptist Church 12082 *	2,405	2405	0	Memory Cards
Mesa Comm College Red Mtn 14202 *	1,729	1729	0	Memory Cards
Mesa Convention Center 15634 *	1,743	1742	-1	Memory Cards
Mesquite Groves Aquatic Center 15622 *	889	889	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Messinger Mortuary 14396 *	1,489	1489	0	Central Count
Mount Calvary Baptist Church 11109 *	1,077	1077	0	Memory Cards
Mountain Park Health Center 15680 *	1,328	1328	0	Central Count
Mountain Park Maryvale Clinic 15584 *	329	329	0	Memory Cards
Mountain View Park Comm Ctr 10982 *	1,586	1586	0	Central Count
Mountain View School *	958	958	0	Memory Cards
Mountain Vista Club/Vistancia 15511 *	1,507	1504	-3	Memory Cards
Murphy ESD Education Center 15616 *	395	395	0	Memory Cards

Nadaburg School District Office 15282 *	745	745	0	Central Count
North Phx Bap Ch PV Campus 10769 *	1,051	1047	-4	Memory Cards
North Scottsdale UMC 12219 *	1,292	1292	0	Memory Cards
North Valley Free Will Bap Ch 14098 *	871	871	0	Memory Cards
Nozomi Aquatic Center 15494 *	879	879	0	Memory Cards
Oasis Community Church 12913 *	1,451	1451	0	Memory Cards
Outlets at Anthem 15607 *	1,929	1929	0	Memory Cards
Palm Lane School 10248 *	236	236	0	Memory Cards
Palm Ridge Recreation Center 13302	786	786	0	Central Count
Paradise Valley Comm College 12103 *	2,205	2205	0	Memory Cards
Paradise Valley Town Hall 13977 *	993	993	0	Memory Cards
Peace Lutheran Church 13888 *	1,460	1461	1	Memory Cards
Pendergast ESD Office 10055 *	1,560	1560	0	Memory Cards
Perry Branch Library/Gilbert 15308 *	1,536	1536	0	Memory Cards
Phoenix Art Museum 15729 *	1,017	1017	0	Memory Cards
Phoenix Laestadian Luth Ch12449 *	1,575	1575	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Phoenix Union HS Dist 14187 *	862	862	0	Memory Cards
Praise And Worship Center 15523 *	1,253	1253	0	Central Count

Progressive Baptist Church 11145 *	815	815	0	Central Count
Pyle Adult Recreation Center 11072 *	1,161	1160	-1	Memory Cards
Queen Creek Library 15550 *	2,259	2255	-4	Central Count
Radiant Church Sun City 10371 *	1,392	1390	-2	Memory Cards
Salt River Pima Community Center 10580 *	809	809	0	Memory Cards
San Lucy Dist Admin Bldg 13851 *	37	37	0	Memory Cards
San Tan Village Mall 15664 *	1,416	1415	-1	Central Count
Save the Family 15726 *	804	804	0	Central Count
Scottsdale Elks Ldg Pboe #2148 11966 *	1,554	1553	-1	Memory Cards
Scottsdale Worship Center 10215 *	1,778	1775	-3	Central Count
SE Regional Library Gilbert 10443 *	1,953	1952	-1	Memory Cards
Second Ch Of Christ Scientist 11731 *	905	905	0	Memory Cards
Sevilla Elementary School 10432 *	702	702	0	Memory Cards
Shadow Mountain High School 12774 *	1,535	1526	-9	Central Count
Shadow Rock Church 12771 *	945	945	0	Memory Cards
Shepherd Of The Hills UMC 10287 *	1,222	1222	0	Memory Cards
Sheriff Posse of SCW *	933	933	0	Memory Cards
Skyway Church - West Valley 15022 *	684	684	0	Memory Cards
South Phoenix Baptist Church 10611 *	596	596	0	Memory Cards
Spirit Of Grace Lutheran Church 13927 *	1,089	1089	0	Memory Cards
St Andrew Lutheran Church 11092 *	1,207	1207	0	Memory Cards
St Johns Lutheran Church 10440 *	773	773	0	Memory Cards

Exhibit: RECONCILIATION				
Vote Center	Check-ins	Reported Ballots	Variance (Potential Fled, EV Checkin, Prov Voter)	Official Results / Source of Reporting
St Margarets Catholic Church 11054 *	651	651	0	Memory Cards
St Nikolas Serbian Orth Ch 12268 *	640	639	-1	Memory Cards
Standing Stones Comm Ch 15405 *	1,625	1625	0	Memory Cards
Sun Lakes UMC 12938 *	1,500	1500	0	Memory Cards
Sunland Village East 12374 *	1,731	1730	-1	Memory Cards
Sunrise United Methodist Church 12809 *	1,249	1249	0	Memory Cards
Sunset Canyon School 14814 *	1,071	1071	0	Memory Cards
Surprise City Hall 14239 *	1,850	1850	0	Memory Cards
Surprise Senior Center 11007 *	1,339	1331	-8	Memory Cards
Tempe History Museum 15612 *	1,222	1222	0	Memory Cards
Tempe Mountain Park Hlth Ctr 15695 *	776	776	0	Memory Cards
The Refinery Christian Church 15735 *	869	869	0	Memory Cards
Tolleson Council Chambers *	914	914	0	Memory Cards
Tomahawk School 10692 *	627	627	0	Memory Cards
Trilogy @ Power Ranch 14134 *	1,867	1867	0	Memory Cards
Trinity Bible Church of SCW 14584 *	450	449	-1	Central Count
Tumbleweed Recreation Center 15418 *	1,350	1351	1	Memory Cards
Union ESD Office 11289 *	725	725	0	Memory Cards

University Lutheran Church 11063 *	638	638	0	Memory Cards
University Presbyterian Church 10323 *	649	649	0	Memory Cards
Valley Baptist Church Tonopah 14178 *	598	597	-1	Memory Cards
Valor Christian Center 15567 *	1,518	1518	0	Memory Cards
Velda Rose UMC 11186 *	1,684	1684	0	Memory Cards
Venue 8600 15599 *	1,286	1286	0	Central Count

Exhibit: RECONCILIATION				
Vote Center	**Check-ins**	**Reported Ballots**	**Variance (Potential Fled, EV Checkin, Prov Voter)**	**Official Results / Source of Reporting**
Via Linda Senior Center 13833 *	896	896	0	Memory Cards
Victory Lutheran Church 11349 *	1,371	1370	-1	Memory Cards
Vineyard Church Of North Phx 14644 *	1,182	1181	-1	Memory Cards
Washington ESD Office 14138 *	746	745	-1	Memory Cards
Wesley Community Center 12104 *	184	176	-8	Central Count
West Valley UUC 15136 *	711	710	-1	Memory Cards
Westwood Elementary School 11307 *	828	827	-1	Memory Cards
Wickenburg Community Center 11322 *	1,000	1000	0	Memory Cards
Worship & Word Church 15581 *	1,115	1115	0	Memory Cards
Youngker High School 15322 *	852	852	0	Memory Cards
Youngtown Clubhouse 12156 *	929	928	-1	Memory Cards

EXHIBIT D

Statistical confidence intervals for mismatched signatures in 2022, projected from mismatched signatures identified in 2020.

Confidence	Intervals	for	Proportion	of	Egregious	Mismatched	Signatures:		Extrapolation to	1,900,000	ballot envelopes and to		1,311,734	early votes
p	=	n_egregiousMismatch/	sampleSize	=	22964	/	230339	= 0.09969653		189423			130775	
95.000%	Confidence	Interval	is	0.09847592	to	0.10092723			>= 187104	<=	191762	>= 129174	<=	132390
99.000%	Confidence	Interval	is	0.09809471	to	0.10131492			>= 186380	<=	192498	>= 128674	<=	132898
99.900%	Confidence	Interval	is	0.09765344	to	0.10176592			>= 185542	<=	193355	>= 128095	<=	133490
99.990%	Confidence	Interval	is	0.09728385	to	0.1021455			>= 184839	<=	194076	>= 127611	<=	133988
99.999%	Confidence	Interval	is	0.09696021	to	0.10247928			>= 184224	<=	194711	>= 127186	<=	134426

Confidence	Intervals	for	Proportion	of	StandardDefinition	Mismatched	Signatures:							
p	=	n_standardMismatch/	sampleSize	=	29406	/	230339	= 0.12766401		242562			167461	
95.000%	Confidence	Interval	is	0.1263037	to	0.1290337			>= 239977	<=	245164	>= 165677	<=	169258
99.000%	Confidence	Interval	is	0.1258785	to	0.1294649			>= 239169	<=	245983	>= 165119	<=	169824
99.900%	Confidence	Interval	is	0.1253861	to	0.1299664			>= 238234	<=	246936	>= 164473	<=	170481
99.990%	Confidence	Interval	is	0.1249735	to	0.1303883			>= 237450	<=	247738	>= 163932	<=	171035
99.999%	Confidence	Interval	is	0.124612	to	0.1307591			>= 236763	<=	248442	>= 163458	<=	171521