Signature Verification Training
2023 Colorado County Clerks Association Summer Conference

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June 29, 2023
Durango, Colorado
What is signature verification?

Signature verification is the process of comparing the signature on a voter’s affidavit envelope with the voter’s signature in the voter registration database.
Where is signature verification used in elections?

Election activities where signatures may be verified:

- Mail ballot applications
- Affidavit from voted mail ballot envelopes
- Petitions
- Pollbook check-in at polling locations
- Registration updates
We sign our name so frequently that:

- It’s done without much thought
- It becomes habitual
- We do not think about each letter
- We just write!

Is a person’s signature part of their identity?
Activity 1

1. On a sheet of scratch paper, sign your name five times.
2. Look at each signature, noticing the similarities and differences.
3. Find a partner and exchange the signature sheets.
4. Using a pen, each person circles the similarities and underline any differences in their partner’s signatures.
5. Did your partner identify the same similarities and differences you noticed in Step 2 of the activity?
Activity 2

1. With the same partner, try signing each other’s name with and without looking at the reference sheet.

2. Discuss the similarities and differences.

3. How well did these signatures match the five authentic signatures?
What are the sources of signature images?

- Digital images from the driver’s license or state identification card
- Scanned images from a paper registration form or mail ballot application
- Scanned images from a paper poll book
- Digital image from an electronic poll book
E-Pad Signatures

Voter Record Signature

Michael Green

Mail Ballot Signature

Michael Green

Signatures on e -pads might be missing parts of the image

Reference image might be pixelated and bolder or have thicker writing
When might a signature have variances?

- Health or age-related conditions that manifest as trembling or shaking in a signature
- Use of a diminutive of the full legal name such as a nickname, initials, or omitting a second last name
- Signature style may have changed slightly over time
- Hastily written signature
- Pen and ink signature on paper versus an image made with a stylus and signature pad
- Rough, soft, uneven, or unstable writing surface
**Age/Other Factors**

**Voter Record Signature**

Theodore Carson

**Mail Ballot Signature**

Theodore Carson

**Signing with a Nickname**

**Voter Record Signature**

Isabella Jones

**Mail Ballot Signature**

Bella Jones
Activity 3

1. Use the reference sheet with your five signatures.

2. Take a look at the signature on your driver’s license or other government issued ID card.

3. How well does the ID signature (most likely from an stylus and signature pad) match the five pen and ink signatures?

4. Find a different partner and discuss the similarities and differences.
Dual-tiered review
Because variances are expected:

- Look for significant points of agreement
- Identify the variances and the similarities
- When variances are too great (in quality or quantity), the signature should be referred for additional review
Triage is the goal for the first level of review!

- Signature being examined is compared with the reference signature on file.
- Signatures with obvious matches should be accepted.
- Focus is on the similarities as well as the differences.
- If differences outweigh the similarities, flag for Tier 2 review.
- Most signatures will be accepted in this step.
For the second level of review, reviewers should:

- Work in bipartisan teams of two
- Review all available signatures in the voter’s registration record (where allowed)
- Decide if the signature *sufficiently* agrees with the signature(s) on file.
- Reach a decision to accept or reject
- Consult with a supervisor or election staff to resolve disagreements
In addition to Tier 2 review, supervisors should:

- Be observing and checking the reviewers
- Balance the number of signatures and workload with experience
- Track the verifiers accept/reject rates against the normal or average range
- Consider a signature validation audit
Think of signatures like a picture
1. You will be shown a pair of pictures.
2. There are differences between the pictures, but your job here is to determine whether the pictures are of the same person.
Getting into the details
How do we compare signatures?

- Learn what to look for and then trust your best judgment
- Two key steps:
  1. Quick analysis of the general character of the signature
  2. Sharp focus on the individual details
Step One - Broad Characteristics

Look at the signature like a picture and notice the broad characteristics. If the broad characteristics are clearly consistent with the exemplar signature, accept the signature and move on. If not, go to Step Two.

- Type of writing (cursive or print)
- Proportions
- Spacing
- Flow
- Slant
This is not always a straightforward issue.

If the name is misspelled, refer the signature for further review in case there is a data entry error on the voter record.
The style of writing is an easy characteristic to notice.

- Be aware that some individuals use a mix of cursive and printing.
- Your focus should be on the consistency with the exemplar signature.
Proportions

- Consistency in terms of the overall size and proportion of the letters to each other
- How much space the signature takes up in the given space
- The relationship between the signature and the signing line
Look for spacing between individual letters and the parts of a signature (first, last, middle initial, etc.)
People sign their name thousands of times over their lifetime, usually very quickly and without hesitation.

A forgery may show hesitation marks, such as choppy lettering, pen drags or lifts instead of a consistent flow.
● The slant of a signature is one of the easiest characteristics to notice
Many voters that are younger in age do not use cursive to sign their names.

There should still be characteristics in a person’s printing that would show up in repeated signatures.
Activity

1. Print your name on a sheet of paper and trade with someone else.
2. Sign the other person’s name
3. Compare your version of the person’s signature with their five exemplars from the earlier exercise. How do they compare on the broad characteristics:
   - Type of writing
   - Proportions
   - Spacing
   - Flow
   - Slant
   - Spelling
Step Two: Detailed Characteristics

If there are some differences between the signature being examined and the exemplar on file, evaluate the local or detailed characteristics, which include:

- Internal spacing of letters within the names
- Size or proportions of a letter or letter combination
- Curves, loops, dots, dashes and cross-points
- Beginning and ending flourishes and strokes
- The presence or absence of pen lifts
There is a significant space between the capital A and the lowercase n in the mail ballot signature than the signature on file.

However, notice the beginning flourish of the A and the distinctive lowercase a at the end of the name.
In this example, the $v$ and $e$ is much larger than the rest of the name in the mail ballot signature.

However, there are several other characteristics that appear to match, such as the distinctive $S$. 
In this example, there are marked differences with the cross-bar of the capital \( H \) and the loops or lack thereof in the lowercase \( l \) and \( t \).

These discrepancies should trigger additional review.
The signature on the right is lacking all of the beginning and ending flourishes on the capital letters and on the final $n$.

These discrepancies should trigger additional review.
Pen Lifts or Drags

- Here there are hesitation marks in the \( \checkmark \) and /.
- These could be indicative of age or health of the signer, or they could be indicative of someone trying to forge a signature.
Specific Letters

The more complicated that letter or letter combination, the more you’ll see differences if the signature is not genuine.
Another way of looking at this is to use the A.C.E. Method

A - Analyze: Initially note the overall characteristics, distinct indicators, and general habits

C - Compare: Contrast similarities and differences

E - Evaluate: Assess the significance or insignificance of the similarities and differences.
Easy way to remember! A.C.E.

A – Analyze
• Initially note the overall characteristics, distinct indicators, and general habits.

C – Compare
• Contrast similarities and differences.

E – Evaluate
• Assess the significance or insignificance of the similarities and differences.
Training Exercises
Exercise #1 - Accept or Reject

- The next few slides will each feature a pair of signatures.
- The first signature is the official signature from the voter registration record.
- The second signature is the one being evaluated.
- Would you accept or reject each signature?
Allison Smith

Allison Smith
A

A

A
Gloria Cisneros 11.6.2013
Exercise #1 Answers

A. Accept

B. Reject

C. Reject
Exercise #2 - Which one is a match?

In this exercise, you will be shown one example of a word written in someone’s handwriting.

Choose the best match from four choices.
1. State

A. State

B. State

C. State

D. State
2. Precinct
3. Ballot

A. Ballot

B. Ballot

C. Ballot

D. Ballot
4. Voter

A. Voter  B. Voter

C. Voter  D. Voter
5. Elections

A. Elections  B. Elections

C. Elections  D. Elections
6. Results

A. Results

B. Results

C. Results

D. Results
Exercise #2 Answers

1. State - D
2. Precinct - B
3. Ballot - B
4. Voter - D
5. Elections - C
6. Results - D
Exercise #3  - Match the handwriting

1. Your instructor will hand out a sheet of paper for this next exercise.
2. There are 30 words written by 15 authors.
3. Find each of the two handwritings that were authored by the same person.
## Exercise #3 - Answers

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Final Review
Resources
Signature Verification Quick Guide

An election judge shall compare the signatures on the self-affirmation on each return envelope with the signatures of the eligible elector stored in the statewide voter registration system. If the signature does not show any signs of discrepancy, (see criteria below) the ballot is acceptable. Ballot affidavit signatures with any one of the discrepancies below must be initially rejected and sent to Further Research.

1. An obvious change in the signature's slant.

2. A printed signature on one document and a cursive signature on the other document.

3. A difference in the signature's size or scale.

4. A difference in the signature's individual characteristics, such as how the "T's" are crossed, "I's" are dotted, or loops are made on "Y's" or "3's".

5. A difference in the voter's signature style, such as how the letters are connected at the top and bottom.

6. Evidence that ballots or envelopes from the same household have been switched.

7. Any other noticeable discrepancy such as misspelled names.
Questions?
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