

# Evidence Maturity Framework for Election Vulnerability Claims

This framework evaluates the evidentiary maturity of specific claims about election vulnerabilities. It does not assess election legitimacy, intent, motive, or criminality. Its sole purpose is to determine how far a claim is supported by the available evidence, as measured against defined levels of proof.

Level 0 represents informal anomaly perception and carries no evidentiary weight; it serves only to motivate articulation of a claim at Level 1.

The unit of analysis is always a claim, and the claim must be stated precisely. Events, systems, and individuals are considered only insofar as they are referenced by the claim under evaluation. Advancement to a higher level requires source evidence that establishes at least one factual element required at that level. Derivative evidence may contextualize or interpret source evidence but cannot, by itself, advance a claim.

## Step-by-Step Application

### Step 1. State the claim precisely

A claim must be written as a clear, falsifiable assertion.

**Unacceptable:** “The system is broken.”

**Acceptable:** “Required reconciliation procedures were not performed for ballots processed on Election Day.”

If a claim cannot be stated cleanly, it cannot be evaluated using this framework.

### Step 2. Match evidence to the level’s burden of proof

Each level in the framework has a defined burden of proof. Evidence that does not satisfy the burden for a given level does not advance the claim, regardless of how compelling it may appear.

The following substitutions are not permitted:

- Logical arguments cannot satisfy empirical burdens.
- Written procedures cannot substitute for demonstrated occurrence.
- Demonstrated occurrence cannot substitute for demonstrated impact.

### Step 3. Identify the highest level supported by evidence

Begin at Level 0 and proceed upward only when the evidence strictly satisfies the criteria for the next level.

At each step, analysts should ask: “*Given the facts established so far, could this all have happened without the claim being true?*” If the answer is yes, advancement is not permitted.

Explanations or assurances, including those issued by election officials or authorities, neither advance nor block a claim unless they are supported by source evidence that satisfies the relevant level’s burden of proof.

**Key rule:** The highest level reached represents the strongest defensible version of the claim.

The following are not permitted:

- Advancing a claim by implication rather than by meeting the next level’s defined burden of proof.
- Substituting the quantity of lower-level evidence for the quality required at a higher level.

### Step 4. Stop when the evidence stops

Stopping at a lower level is not failure; it is analytic discipline.

Interpretation by stopping point:

- A claim that stops at Level 3 identifies risk.
- A claim that stops at Level 4 identifies plausible misuse.
- A claim that stops at Level 5 identifies a demonstrated control failure.

Only Level 6 addresses outcome change, and it requires substantially stronger evidence, including causal and counterfactual analysis<sup>1</sup>.

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<sup>1</sup>Evidentiary classification is distinct from enforcement or remedial determinations. Missing or withheld records may constitute independent governance failures, but do not substitute for causal or counterfactual proof of outcome impact.

Table 1: Evidence Maturity Framework for Election Vulnerability Claims

Lvl	Category	Descriptor	What Makes It Distinct	Primary Question	Burden of Proof	Typical Evidence
0	Nascent Perception	Anomaly perceived	An informal perception that something may be inconsistent with expectation, without an articulated claim	Is an anomaly perceived?	None	Informal observations, impressions, intuitive concern
1	Claim Articulation	Stated claim	The anomaly is articulated as a specific, testable claim without asserting correctness	Can the anomaly be stated as a coherent claim?	Clarity and internal coherence	A clearly stated claim, definitions, scope statements
2	Architectural Capability	Latent capability	System architecture or governance allows misuse; capability exists but has not been shown in operation	Does the system structurally allow this?	Design demonstration	Architecture diagrams, statutes, authority models, system specs
3	Procedural Weakness	Observable procedure	Written rules or routine practices that create risk in normal operation, visible without insider access	Does the system actually operate this way?	Empirical documentation	Written procedures, training manuals, statutes, public records, statistics
4	Abuse Pathway	Plausible abuse pathway	A defined method by which a capability or procedure could be abused, without proof of occurrence	Is there a specific way this could be misused?	Mechanistic plausibility	Step-by-step scenarios, consistent with procedures
5	Demonstrated Control Failure	Documented control failure	Evidence shows a specific control failure occurred while live ballots or data were processed	Did a control failure actually occur?	Preponderance of evidence	Logs, records, reconciliation gaps, forensic findings, sworn testimony
6	Determinative Impact	Material effect on result	Demonstrated control failure plausibly altered outcome; requires causal and counterfactual analysis	Did this change the outcome?	Causal + counterfactual proof	Quantification, margin comparison, causal modeling, expert analysis

## Example: Evidence Maturity Framework Application (Antrim County, Michigan, 2020)

### Level 0 — Nascent Perception

*An anomaly is perceived.*

Unofficial election-night tabulation output appeared inconsistent with expectations.

### Level 1 — Claim Articulation

**Claim (C1):** *The election system produced incorrect, outcome-reversing tabulation output under realistic operating conditions.*

**Logical admissibility:** Met.

### Level 2 — Architectural Capability

Election system architecture includes a tabulation and reporting layer in which configuration state can influence aggregated results prior to certification.

**Assessment:** Met.

### Level 3 — Procedural Weakness

Routine election administration procedures include configuration and reporting steps that operate as described in normal operation without insider access or extraordinary deviation.

**Assessment:** Met.

### Level 4 — Abuse Pathway

A specific sequence of configuration and reporting actions exists by which incorrect aggregation output could be generated without immediate detection.

**Assessment:** Met.

### Level 5 — Demonstrated Control Failure

Evidence shows that a control failure occurred during live processing, allowing incorrect tabulation output to be produced and reported.

**Assessment:** Met.

### Level 6 — Determinative Impact

A causally independent measurement process (hand count / canvass) confirmed that the initially reported outcome differed from the true vote totals.

**Assessment:** Met.

**Evidence Maturity Result for Claim C1:** Level 6.

**Reference analysis:** J. Alex Halderman

## Example: Evidence Maturity Framework Application (Pennsylvania Mail Ballot Dating, 2020)

### Level 0 — Nascent Perception

*An anomaly is perceived.*

Observers noted that some mail ballots were accepted despite missing or incorrect voter-written dates on return envelopes.

### Level 1 — Claim Articulation

**Claim (C2):** *Election procedures permitted acceptance of mail ballots that did not comply with statutory dating requirements.*

**Logical admissibility:** Met.

### Level 2 — Architectural Capability

Pennsylvania election law and guidance delegated initial envelope review and ballot acceptance decisions to county election officials.

**Assessment:** Met.

### Level 3 — Procedural Weakness

Official guidance and routine county practices resulted in inconsistent enforcement of mail-ballot dating requirements during live election processing.

**Assessment:** Met.

### Level 4 — Abuse Pathway

A defined procedural pathway existed by which non-compliant mail ballots could be accepted and counted without detection at the time of canvass.

**Assessment:** Met.

### Level 5 — Demonstrated Control Failure

No evidence demonstrates that specific non-compliant ballots were accepted in violation of law in quantities sufficient to establish a documented control failure.

**Assessment:** Not met.

**Evidence Maturity Result for Claim C2:** Level 4.

**Reference context:** Pennsylvania election administration guidance and related litigation concerning mail-ballot dating requirements.

*The following worksheet operationalizes the framework above and should be used only after consulting the level definitions in Table 1.*

# Evidence Maturity Worksheet

Report / Source evaluated: \_\_\_\_\_  
Date of occurrence (approx.): \_\_\_\_\_  
Location of occurrence (approx.): \_\_\_\_\_

## Observation / Anomaly (Pre-Claim)

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*Note: Record the observed pattern, inconsistency, or event that motivated this analysis. This observation carries no evidentiary weight. It exists only to preserve traceability and context.*

## Claim Definition

Claim ID: \_\_\_\_\_

## Claim Statement

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*Note: Only articulated claims are evaluated using the Evidence Maturity Framework. The presence or plausibility of an observation does not advance a claim.*

## Evidence Maturity Assessment (Claim Only)

*Level 0 (observation) is not scored. Levels below apply only to the claim stated above.*

Level	Category	Met	Evidence / Citation
1	Claim Articulation	<input type="checkbox"/>	
2	Architectural Capability	<input type="checkbox"/>	
3	Procedural Weakness	<input type="checkbox"/>	
4	Abuse Pathway	<input type="checkbox"/>	
5	Demonstrated Control Failure	<input type="checkbox"/>	
6	Determinative Impact	<input type="checkbox"/>	

Stopping Point (Highest Level Supported): \_\_\_\_\_

## Analyst Notes

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Completion date: \_\_\_\_\_  
Analyst name: \_\_\_\_\_