

# Introduction to the Standard of Expert Witness Testimony

How Federal Courts Evaluate the Expert, the Methodology, and the Fit Between the Opinion and the Actual Issue in Dispute

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*Study of Crystal Salazar*

## Purpose and Scope

This document is an academic orientation primer prepared for Professor Paterson's scholarly research study. Its purpose is to explain the federal expert witness framework at depth sufficient for research use. It is not intended for filing in court, citation in motion practice, or use as a litigation exhibit. Documents 2 and 3 in this series provide the practitioner tools — the checklist and the declaration template — for litigation use. Any actual litigation requires review by a licensed attorney.

## Disclaimer

This document provides legal information, not legal advice. Nothing herein constitutes legal advice or creates an attorney-client relationship.

## PRELIMINARY: THE MOST IMPORTANT QUESTION — WHAT ISSUE IS ACTUALLY BEING PROVED?

Before any expert can be properly qualified, any methodology selected, or any evidence gathered, the single most important task is to identify the precise factual and legal proposition the expert will be asked to prove. What is sometimes called 'indigenous heritage' is not a single unified evidentiary question. It encompasses several distinct propositions, each of which may require different experts, different methods, and different evidence:

Issue	What It Requires
Biological ancestry	Evidence that the person descends biologically from indigenous ancestors — typically through genealogical records, but not necessarily enrollment or citizenship documentation.
Documented lineal descent	A traceable documentary chain connecting the person to a specific identified ancestor, often required by statute or tribal enrollment criteria.
Tribal citizenship or enrollment	Proof that the person is an enrolled member of a federally recognized tribe, governed by that tribe's own law and criteria.

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Enrollment eligibility	Proof that the person meets the criteria for enrollment even if not yet enrolled — blood quantum, descendancy, or other tribe-specific criteria.
ICWA membership or eligibility	Specific statutory standard: the person is a member of a federally recognized tribe, or is eligible for membership and the biological child of a member.
NAGPRA cultural affiliation	A shared group identity between a present-day Indian tribe and a historical group — typically requiring anthropological, archaeological, or historical analysis rather than genealogy.
Community affiliation evidence	Evidence of long-standing social, familial, or community connection to an indigenous group, distinct from formal enrollment.
Social identity in a discrimination context	Evidence relevant to how a person was perceived and treated in a social context, which may require different evidence than legal status claims.

**The Single Most Common Expert Witness Error in This Area**

An expert who establishes biological ancestry when the statute requires enrollment eligibility, or who establishes community affiliation when the issue is lineal descent, has answered the wrong question. The expert's report must be calibrated to the specific proposition the case requires. Before retaining an expert, counsel must identify which of the above propositions governs the claim. That determination shapes every subsequent decision.

**I. OVERVIEW AND GOVERNING LEGAL FRAMEWORK**

In United States federal courts, expert witness testimony is not automatically admitted. The trial judge acts as a gatekeeper and must determine whether the proposed testimony satisfies Federal Rule of Evidence 702. There is no separate expert-witness rule applicable simply because the subject concerns ancestry, descent, tribal status, or community affiliation. The same federal framework applies regardless of subject matter.

What changes from case to case is the precise issue being proved, the discipline that may assist the court, the sources that are relevant, and the methods that are professionally appropriate to that issue. Understanding the federal framework first — and then applying it to the specific issue — is the correct analytical sequence.

**A. Federal Rule of Evidence 702 (as amended 2023)**

FRE 702 provides that a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if:

1. The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
2. The testimony is based on sufficient facts or data;
3. The testimony is the product of reliable principles and methods; and

4. The expert's opinion reflects a reliable application of those principles and methods to the facts of the case.

The 2023 amendment made two important clarifications that reinforce and make explicit existing gatekeeping authority:

- The court must find each requirement satisfied as a matter of admissibility, by a preponderance of evidence. This clarifies — rather than invents — what courts were already doing under Rule 104(a) and Daubert, but it forecloses arguments that these conditions go merely to weight rather than admissibility.
- The fourth prong was clarified to require that the expert's opinion itself — not just the methodology in the abstract — reflects a reliable application to the specific facts of this case. This reinforces the analytical-gap doctrine from Joiner and the fit requirement from Daubert, providing a clearer textual basis for scrutinizing whether a sound general method was reliably applied to this particular plaintiff's facts.

## B. The Daubert Trilogy

Case	Holding and Significance
Daubert v. Merrell Dow Pharmaceuticals (1993)	Established the trial judge as gatekeeper. The judge must make a preliminary determination that proposed expert testimony rests on a reliable foundation and is relevant to the facts. Replaced the prior Frye general acceptance standard with a more flexible, multi-factor inquiry.
General Electric Co. v. Joiner (1997)	Appellate review of admissibility decisions is for abuse of discretion. Joiner's key warning: courts need not admit expert opinion where there is 'too great an analytical gap' between the data and the conclusion. The ipse dixit problem — opinion without shown reasoning — can justify exclusion.
Kumho Tire Co. v. Carmichael (1999)	Extended the Daubert gatekeeping function to all expert testimony, not just scientific evidence. Particularly important for ancestry and descent cases where experts are often historians, genealogists, anthropologists, or ethnographers. The reliability inquiry is flexible and adapted to the discipline.

## C. The Rule 104(a) Gatekeeping Mechanism

Federal Rule of Evidence 104(a) is the procedural mechanism by which the court makes preliminary admissibility determinations. The court — not the jury — decides whether the conditions for admissibility are met by a preponderance of the evidence.

In practice, Rule 702 challenges are addressed to the judge through pretrial motion practice — typically a motion in limine or a Daubert motion. The court may resolve these questions on briefs and written submissions, or in some cases through an evidentiary hearing. Neither approach is universal: courts have discretion to decide admissibility on papers without a live hearing, and often do. If the expert is excluded at this stage, the jury never hears the testimony.

## II. HOW AN EXPERT WITNESS IS QUALIFIED

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Qualification and admissibility are related but distinct issues. The court considers whether the witness is qualified for the specific subject matter addressed and whether the proposed opinions satisfy Rule 702's requirements of sufficient factual basis, reliable methodology, and reliable application.

### A. Credential Qualification Under FRE 702

An expert may be qualified by knowledge, skill, experience, training, or education. The threshold is not whether the witness is the most prominent person in their field, but whether they have specialized knowledge that will assist the trier of fact on the specific issue in dispute.

A critical principle: breadth of credential is not a substitute for specificity of expertise. A historian of the American West is not automatically qualified to testify about the genealogy of a particular family line. An anthropologist with expertise in one region or community is not automatically qualified to opine about another. For each expert, the relevant question is whether the qualification matches the specific issue actually in dispute in the case.

Depending on the issue, qualified experts in cases involving ancestry, descent, tribal status, or community affiliation may include:

- Historians specializing in indigenous peoples, colonial history, or federal Indian law
- Anthropologists or ethnographers with fieldwork experience in relevant communities
- Genealogists with training in the specific record systems relevant to the tribe, period, and geography at issue
- Tribal enrollment specialists familiar with the law and practice of the specific tribal nation
- Linguists with expertise in the relevant language group
- Archivists specializing in the record sets relevant to the issue

### B. The Daubert/Kumho Methodology Scrutiny

Even a well-credentialed expert must demonstrate that their methodology is reliable. For scientific testimony, courts may consider whether the theory has been tested, whether it has been peer reviewed, the known or potential error rate, and whether it is generally accepted in the relevant community. For non-scientific expertise — common in ancestry and descent cases — Kumho confirms the reliability inquiry is flexible. Courts do not mechanically apply all scientific Daubert factors to a historian or genealogist.

For experience-based expertise, courts ask: Does the expert explain how their experience leads to the conclusions offered? Why is that experience a sufficient basis? How was it reliably applied to the facts of this specific case? The more clearly the expert answers these questions, the more likely the testimony is to be admitted and credited.

### C. Qualification Challenges and Preliminary Examination

Opposing parties may challenge expert qualifications and the basis of testimony through pretrial motions. Courts may also permit preliminary examination of the expert's qualifications or the basis of the testimony, whether through motion practice, evidentiary proceedings, or, in some cases, limited voir dire. The specific procedure is within the court's discretion. Counsel should

be prepared for challenges to qualifications, fit between the expert's credentials and the specific issue, methodology, prior positions, and fee arrangements.

#### D. FRCP 26(a)(2) Disclosure Requirements for Retained Experts

In civil cases, retained experts must provide a written report prepared and signed by the expert that includes: all opinions and the basis and reasons for each; the facts or data considered; any exhibits to be used; the expert's qualifications; all publications authored in the previous ten years; all cases in which the expert testified at trial or deposition in the previous four years; and the expert's compensation.

##### Critical: The Ten-Year Publication Period

FRCP 26(a)(2)(B)(iv) requires disclosure of publications from the previous ten years — not a shorter period. Failure to include a complete publication list can result in exclusion under FRCP 37(c)(1). The ten-year period is often overlooked in practice, particularly where experts list only recent or major publications rather than the full decade. Verify the list is complete before filing.

### III. HOW COURTS EVALUATE EXPERT TESTIMONY ON ANCESTRY, DESCENT, TRIBAL STATUS, OR COMMUNITY AFFILIATION

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Expert testimony in this area presents unique evidentiary challenges because the relevant evidence is often historical, may be fragmented by colonial disruption of records, and requires interpretation of documents created by government agencies, missionaries, or other institutions that classified or recorded indigenous identity inconsistently across time and region.

#### A. The Core Evaluation Framework: Fit, Reliability, and Sufficiency

Dimension	What Courts Look For
Fit (Relevance)	The expert testimony must address a fact actually in dispute in this case. Under FRE 401 and Daubert, the testimony must 'fit' the case — it must track the specific legal or factual issue, not provide interesting background that does not help decide the actual dispute.
Reliability (Methodology)	The methodology must be accepted or professionally grounded within the relevant scholarly discipline. Under the 2023 amendment, courts scrutinize both the general method AND its specific application to this plaintiff's facts.
Sufficiency (Factual Basis)	There must be enough evidence — genealogical records, archival documents, oral history, community records — to support the conclusions. An expert who opines on an insufficient factual foundation will be excluded or discredited.

#### B. Matching the Expert Opinion to the Applicable Legal or Factual Standard

Courts will often discount expert testimony that addresses the wrong question. The expert must frame opinions to address the actual governing standard in the specific case — and different

statutory and regulatory contexts use different standards. The following is a brief reference guide:

Context	Applicable Standard — Illustrative Only; Verify Current Law
Indian Child Welfare Act (ICWA)	A child who is a member of a federally recognized tribe, or eligible for membership and the biological child of a member. Tribal membership criteria govern eligibility.
NAGPRA (repatriation)	Cultural affiliation: a relationship of shared group identity between a present-day Indian tribe and a historical group, established by a preponderance of evidence.
Tribal enrollment	Each tribe sets its own criteria, which may include blood quantum, lineal descent from a specific roll, residency, or a combination. Federal courts generally defer to tribal membership determinations.
Federal programs requiring Indian status	Varies by statute and program. Some require enrollment in a federally recognized tribe; others require descendency; others use blood quantum or other criteria. Verify the specific statute.
Discrimination or tort claims	The relevant issue may be how the person was socially perceived and treated — a social-identity question different from formal legal status.

### **C. Key Evidentiary Sources — Issue- and Community-Specific**

Where relevant to the tribe, community, geography, period, and legal issue in dispute, credibility is often strengthened by documentary corroboration from appropriate record sets. The relevant sources vary substantially by community, time period, and the specific proposition being proved. An expert should identify and address the principal record sets relevant to the specific case; there is no universal required list.

The following categories illustrate types of sources that may be relevant depending on the specific facts:

#### **1. Federal Enrollment and Census Records (where applicable to the tribe and period)**

- Dawes Rolls (1898–1914): Enrollment records for the Five Civilized Tribes (Cherokee, Choctaw, Chickasaw, Creek/Muscogee, Seminole). For some of those tribes, Dawes Roll ancestry remains highly important to citizenship determinations — but current membership rules are tribe-specific and must be verified against each tribe's governing law and practice.
- Guion Miller Roll (1908–1910): Eastern Cherokee claims roll.
- Baker Roll (1924): Eastern Band of Cherokee Indians.
- Indian Census Schedules (1885–1940): Federal census schedules taken on reservations.
- Annuity rolls and treaty payment records: Organized by family group; relevant to certain tribes and periods.
- BIA allotment records: Records under the Dawes Act, where applicable.

The relevance of each of these records depends on the specific tribe, geographic area, time period, and legal issue. Many indigenous communities and claimants are not associated with

any of these specific records. The absence of a record in one system does not establish the absence of indigenous ancestry or status.

## 2. Church, Mission, and Local Records

- Baptismal, marriage, and death records from mission churches, often the only contemporaneous records for some communities
- Mission school enrollment records; church census records
- State and territorial vital records, land records, and probate records

## 3. Oral History and Ethnographic Evidence

- Properly documented oral traditions and family histories, evaluated against the standards of the relevant discipline
- Oral history materials that experts in the field reasonably rely upon — permitted under FRE 703 even if not themselves independently admissible

## 4. DNA and Genetic Evidence

Genetic ancestry evidence should be treated cautiously. Consumer DNA tests generally do not establish tribal citizenship, enrollment eligibility, or other legal status by themselves. At most, such testing may provide limited corroborative context when interpreted by a qualified expert, carefully limited to what the testing can and cannot show, and connected to documentary, historical, or community-specific evidence relevant to the actual issue in dispute.

If genetic evidence is used, the expert should explain its limitations, identify the question it may help illuminate, and avoid treating it as a substitute for tribe-specific records, documentary lineage evidence, or the governing criteria of the specific tribal nation. The fact that a consumer test reports a percentage of geographic ancestry does not establish tribal membership, enrollment eligibility, or any other specific legal status.

## 5. Tribal Sovereign Authority Over Membership

Federal courts generally recognize that tribal nations possess sovereign authority to define and administer their own citizenship or enrollment criteria. Where tribal citizenship or enrollment is the issue, an official determination, record, or communication from the relevant tribal nation may carry significant weight. Its significance in any particular case depends on the issue, the tribe's law and practices, and the procedural posture.

An expert who opines on tribal membership criteria without engaging the specific tribal nation's law and current enrollment practice may be addressing the wrong standard.

# IV. WHAT EXPERT TESTIMONY MUST INCLUDE FOR MAXIMUM WEIGHT AND CREDIBILITY

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Courts generally give greater weight to expert testimony that demonstrates the following qualities:

- **Narrow scope:** The expert addresses the precise factual proposition in dispute — not ancestry or heritage in general.
- **Transparent methodology:** The expert explains step-by-step how conclusions were reached, not just what they are.
- **Documentary foundation:** Opinions are grounded in identified, cited records rather than self-reporting or bare assertion.
- **Objectivity:** The expert acknowledges contrary evidence, limitations, and alternative explanations — and explains why the conclusions remain sound despite them.
- **Reliable application:** The expert demonstrates that the methodology was correctly applied to this specific plaintiff's facts, not merely that it is sound in the abstract.

For an expert opinion on ancestry, descent, tribal status, or community affiliation, maximum credibility is generally strengthened by demonstrating:

- What precise factual proposition is being offered
- What discipline supports that proposition and why
- What specific records, archival materials, genealogical sources, tribal records, oral histories, or ethnographic materials were reviewed — and which were reasonably available but not found
- Why those materials are the type reasonably relied upon in the expert's field
- How conflicting, ambiguous, or missing records were handled
- How the expert moved from those materials to each specific conclusion
- How the opinion tracks the actual legal or factual standard governing the case

### **The Analytical Gap Problem (Joiner)**

The most important single principle from *Joiner* is that courts may exclude expert opinions where there is too great an analytical gap between the underlying data and the conclusions drawn. The expert must build a complete, traceable path from each piece of evidence to each conclusion. An expert who reviews records and announces conclusions without showing the reasoning chain is vulnerable to *ipse dixit* exclusion — a finding that the opinion rests on nothing more than the expert's own assertion.

## **V. GROUNDS FOR EXCLUSION, LIMITATION, OR IMPEACHMENT**

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### **A. Pre-Trial Challenges**

The most powerful tool is a pre-trial motion challenging admissibility under Rule 702. If granted under the court's Rule 104(a) gatekeeping function, the testimony is excluded entirely. Common grounds include: lack of specific qualification for the issue addressed; unreliable or unexplained methodology; insufficient factual basis; failure to reliably apply the methodology to the specific case facts (the 2023 amendment ground); lack of fit between the testimony and the legal issue; and deficient FRCP 26(a)(2) disclosure.

### **B. Cross-Examination**

If testimony is admitted, cross-examination can substantially reduce its weight. Effective strategies include:

- Scope mismatch: The expert has strong credentials generally but lacks specific expertise in this tribe, lineage, record system, or issue
- Method failure: No reproducible or professionally grounded method; criteria appear invented for this litigation
- Selective use of evidence: The expert relied on favorable records while failing to address obvious contrary evidence
- Overreaching certainty: Conclusions stated with more confidence than the underlying record supports
- Inconsistency with prior work: Prior publications or testimony that contradict current opinions
- Fit failure: The testimony, however academically sound, does not answer the specific legal question
- Bias: Fee arrangements, pattern of one-sided testimony, or other indicia of advocacy

### **C. Rebuttal Expert**

The opposing party may offer a rebuttal expert to critique the methodology, identify records the original expert overlooked, challenge the completeness of the genealogical or documentary chain, or offer an alternative interpretation of the same evidence. A strong expert report anticipates likely rebuttal arguments and addresses them within the original declaration.

## **VI. SUMMARY TABLE**

Evaluation Criterion	What It Requires
Qualification (FRE 702)	Qualified specifically for the precise issue — not just a related field.
Sufficient Factual Basis (FRE 702(b))	Opinions rest on adequate facts and data; not bare assertion or self-reporting.
Reliable Methodology (FRE 702(c))	Method is professionally grounded in the relevant discipline and clearly explained.
Reliable Application (FRE 702(d) / 2023)	The methodology was correctly applied to this specific case's facts.
Fit / Relevance (FRE 401 / Daubert)	Testimony addresses a fact in dispute and tracks the applicable legal or factual standard.
No Analytical Gaps (Joiner)	The reasoning bridge from data to conclusion must be shown — no ipse dixit.
Proper Scope (FRE 704)	Ultimate-issue opinions permitted in civil cases; pure legal conclusions and legal instruction to the court are not.
FRCP 26(a)(2) Disclosure	All opinions; basis and reasons; facts/data considered; exhibits; qualifications; publications (10 yrs); prior testimony (4 yrs); compensation.

Rule 104(a) Gate

Judge decides admissibility by preponderance; often on briefs, sometimes with a hearing.

### **Final Note for Prof. Paterson's Study**

In the context of researching Crystal Salazar's case, the strength of any expert declaration will depend on the quality and relevance of the available record, the fit between the expert's qualifications and the actual issue in dispute, and the precision with which the declaration addresses the governing standard and the case-specific facts. The first task — before retaining any expert — is to identify precisely which proposition the expert will be asked to prove and which legal standard governs that proposition. Documents 2 and 3 provide the practical tools to implement these standards in drafting and evaluating an expert declaration.

# EXPERT WITNESS TESTIMONY — ANCESTRY, DESCENT, TRIBAL STATUS, OR COMMUNITY AFFILIATION FEDERAL STANDARDS

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