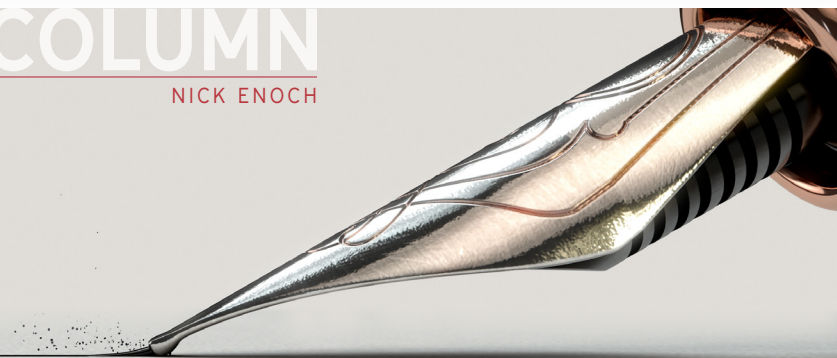




ARIZONA ADR FORUM

THE CHAIR'S COLUMN

NICK ENOCH



NICK ENOCH is the President of Lubin, Enoch & Bustamante, P.C., a law firm that he joined as an associate attorney after graduating from law school in 1995. Mr. Enoch's practice focuses on the representation of labor unions and he routinely appears before arbitrators as well as all courts and administrative agencies in matters arising under traditional (e.g., National Labor Relations Act, Railway Labor Act, Labor-Management Reporting and Disclosure Act) and non-traditional labor and employment law. Mr. Enoch frequently advises and represents clients in the areas of discrimination, wrongful discharge, and wage and hour litigation. In addition to a traditional labor side practice, Mr. Enoch has an active utility regulation practice and he provides pro bono legal assistance to clients through the Florence Immigrant & Refugee Rights Project.

On March 18, our Section held a seminar/CLE at Arizona State University's Sandra Day O'Connor College of Law regarding various areas of ADR practice and how students can gain the required experience in the coming years in order to become an arbitrator or mediator. The five (5) panelists included ADR practitioners in the following legal fields: criminal, employment/labor, family, intellectual property and personal injury.

My law firm regularly hires law students as summer associates, or externs, and with regularity – probably because they smartly read my law firm's website before the interview – these students tell me they want to become an arbitrator or mediator after graduating from law school. And while I try not to deflate their ambitions, I do politely tell them that it really isn't that easy to become a paid neutral.

Paraphrasing my favorite ER by substituting "student" for "client" and "career" for "legal," my thought goes something like this:

"A student is entitled to straightforward advice expressing the lawyer's honest assessment. Career advice often involves unpleasant facts and alternatives that a student may be disinclined to confront. In presenting advice, a lawyer endeavors to sustain the student's morale and may put advice in as acceptable a form as honesty permits. However, a lawyer should not be deterred from giving

candid advice by the prospect that the advice will be unpalatable to the student.

Advice couched in narrow... terms may be of little value to a student, especially where practical considerations, such as cost or effects on other people, are predominant."

I hope that we all make a concerted effort to provide ADR experience and mentorship to new lawyers and future ADR professionals in the Grand Canyon State.

Nick Enoch
Chair – ADR Section

EDITOR | DENNY ESFORD

We welcome comments about this newsletter and invite you to suggest topics or submit an article for consideration. Contact the Editor, Denny Esford at denny@windycitytrialgroup.com.

THE EDITOR'S MESSAGE

DENNY ESFORD



Welcome to our 2026 Pre-Convention issue.

Our feature article in this issue is a discussion by construction expert **Sam Barakat** for a more objective mediation process using Decision Tree Analysis. **Richard Mahrle** provides us with a preview of ADR Section plans for the Bar Convention in June. Finally, our ADR Section Chair **Nick Enoch** announces a joint seminar/CLE with the Sandra Day O'Connor School of Law at Arizona State University.

As always, please let us know your ideas for future articles and perhaps explore sharing your expertise with an article of your own in a future *Arizona ADR Forum*.

See you at the Convention!

Denny Esford

Editor – ADR Section Newsletter





2026 State Bar of Arizona Convention ADR Law Section

BY RICHARD MAHRLE

The ADR Section is excited to announce our line-up for our CLE program at the State Bar Convention. ADR's day will be Thursday, June 25, and as usual, we will have a full day of programming aimed at both ADR practitioners and counsel who need arbitration and mediation services.

We are excited to have as our morning guest **David Hoffman** from the Boston Law Collaborative. He will be discussing how to break impasse in mediations. David is the John H. Watson, Jr. Lecturer of Law at Harvard and has recently published his book, *The Art of Impasse Breaking*. He has been a featured speaker across the country and we are grateful that he will be at our convention program.

The afternoon will see the return of our **ADR Talks**. This fast-moving program gives experienced arbitrators and mediators 15 minutes to explore issues of interest to them and to our audience in a wide variety of topics. Time permitting, our "talkers" will participate in a panel discussion and invite audience input and questions.

We hope to see you in Tucson!



SAM BARAKAT PE, Esq., FCI Arb, PSP resolves complex construction disputes as an expert witness, mediator, and arbitrator, bringing the unique perspective of dual credentials as both a Professional Engineer and licensed attorney. Over 27 years, he has provided technical expertise and dispute resolution services on projects ranging from highway infrastructure to industrial facilities with claims valued over \$830M. His practice focuses on delay analysis using critical path methodology, damages quantification including productivity losses and acceleration costs, and duty of care assessments for professional negligence claims. As a Managing Director at GlassRatner Advisory & Capital Group and AAA Construction Panel arbitrator, Sam delivers defensible analysis and equitable outcomes in high-stakes construction matters.

BY SAM BARAKAT

Decision Trees: Transforming Construction Dispute Mediation from Art to Science

Construction disputes have long been resolved through positional bargaining and subjective intuition. Decision Tree Analysis (DTA) changes that, providing a rational, quantitative foundation that transforms complex multi-claim disputes into effective, value-maximizing settlements.

The Challenge: When Intuition Fails

Imagine a complex construction dispute: A construction project is eight months late. The contractor claims \$22 million for owner-caused delays and disputed change orders, while the owner counterclaims \$9.6 million in liquidated damages and alleged construction defects. Both parties believe that their position is justified and supported. "80% solid".

The problem is that one's belief carries little weight in the face of litigation risk.

Construction disputes are uniquely complex because they involve owners, contractors subcontractors, or vendors, delay events, changed work, differing site conditions, etc. A claimant must succeed sequentially on proving three interdependent elements for claim component:

- 1 **Entitlement:** Does the contract provide relief?
- 2 **Causation:** Did the event actually impact the critical path?
- 3 **Damages:** What is the quantifiable quantum of the loss?

The outcome of one claim element can hinge on success of other claim elements. Traditional mediation, relies on intuition and relational dynamics, often devolves into anchoring, posturing and negotiating to an outcome.

What is Decision Tree Analysis (DTA)?

Decision Tree Analysis, is a powerful decision-support tool for evaluating complex construction claims involving uncertainty, risk, and multiple possible outcomes and is based on best practices from organizations like AACE International (RP 85R-14; RP 133R-23) and the Project Management Institute (PMI – PMBOK GUIDE).

Decision Tree Analysis helps stakeholders to systematically map all possible outcomes of a dispute using two types of nodes:

- **Decision Nodes (Squares):** Represent points where a party must choose an action (e.g., Settle vs. Litigate, Pursue Claim vs. Abandon).
- **Chance Nodes (Circles):** Represent points where an uncertain event occurs each with an associated probability (e.g., Jury awards damages, Judge rules on entitlement, add arbitration?).

The Power of Expected Value (EV)

A defining feature of Decision Tree Analysis is its calculation of **Expected Value (EV)**—the probability-weighted average of all possible outcomes. This quantitative approach replaces subjective posturing with rational analysis.

Decision Tree Analysis Excels in Construction Mediation

Decision Tree Analysis serves as a practical “reality check” before and during mediation, which is especially effective for quantitatively minded stakeholders like engineers and accountants.

The “50/50 Reality Check”

One of Decision Tree Analysis most powerful techniques is demonstrating how probabilities compound across sequential events. A claimant must prove contract entitlement, critical path impact, concurrent delay, and damage calculations methodology. When a contractor has a \$2 million claim requiring success on these four key elements, assigning a **50% recovery chance** to each individual element results in a sobering 6.25% probability:

$$50\% \times 50\% \times 50\% \times 50\% = 6.25\% \text{ Probability of Full Recovery}$$

Mathematics often reveals that the probability of winning the full amount is drastically lower than the client’s expectation, immediately driving parties toward a more realistic settlement range.

Decision Tree Example: A \$4.5M Contractor Delay and Disruption Claim

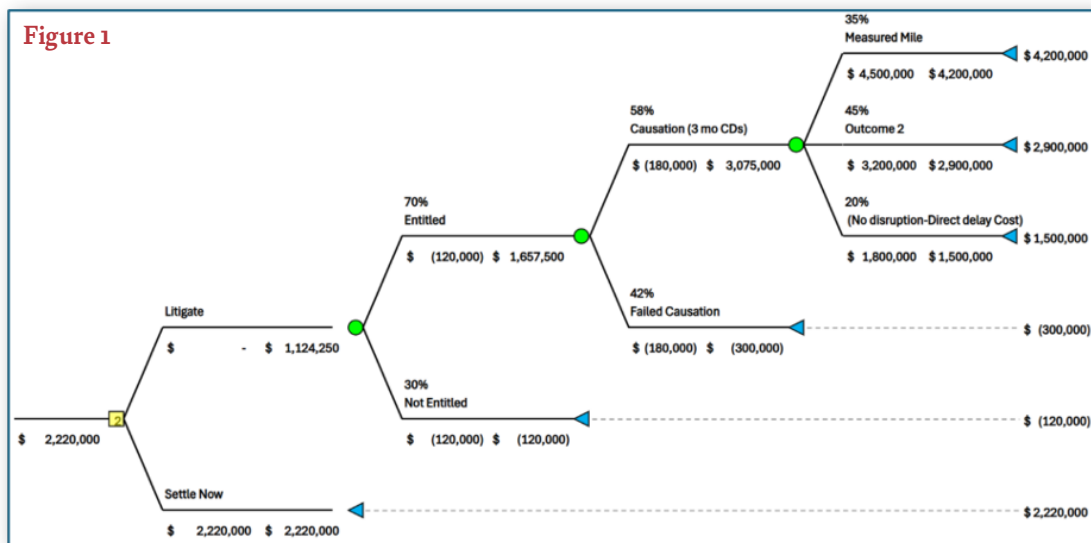
The contractor faces a critical decision on a \$4.5 million scope change claim stemming from 37 documented Requests for Information (RFIs) where the owner directed HVAC efficiency upgrades during construction. The contractor asserts these modifications caused a three-month critical delay to mechanical systems installation, resulting in substantial labor productivity cost overruns. The owner disputes the claim, characterizing the changes as clarifications to the original specifications rather than compensable scope changes. With a 50% settlement offer of \$2.25 million on the table, the contractor must weigh the certainty of immediate recovery against the uncertain prospects of litigation.

A Decision Tree Analysis assists the contractor to make an informed decision. The litigation path involves sequential uncertainties:

- first, a 70% probability of establishing entitlement based on the written RFI trail and contract language;
- second, a 58% probability of proving causation through schedule analysis despite the owner’s arguments about available float;
- finally, a three-tier damages scenario ranging from \$1.8M to \$4.5M depending on which cost methodology the arbitrator accepts for the overrun cost due to disruption.

When accounting for \$300,000 in litigation costs through hearing and trial, the expected monetary value of litigation calculates to approximately \$1.1 million – less than half the settlement offer. See **Figure 1** below for a depiction of the Decision Tree analysis.

The financial comparison clearly favors settlement: A certain \$2.22 million (\$2.5m–\$30k mediation cost) net settlement represents a 97% premium over the \$1.12 million expected value of litigation. This substantial gap reflects not only the compounding effect of sequential probabilities where the contractor must prevail at each stage to reach an award but also the very real risk of total loss. The analysis shows a 30% chance of failing at the entitlement phase with only \$120,000 in sunk costs, and a cumulative 59.4% probability of recovering nothing while still incurring between \$120,000 to \$300,000 in legal expenses.





Decision Trees: Transforming Construction Dispute Mediation from Art to Science

Structuring Multi-Claim Construction Disputes

Real-world construction disputes are inherently complex, involving multiple interconnected claims with uncertain outcomes that compound in non-obvious ways. A single project dispute might simultaneously involve design defects, differing site conditions, owner-caused delays, acceleration costs, and loss of productivity, each with its own probability of success, potential damage range, and legal theory. The challenge intensifies because these claims don't necessarily exist in isolation, as one claim's outcome can affect another's viability, certain claims are mutually exclusive, and the same factual evidence may support multiple theories of recovery while creating double-counting risks.

Moreover, different claims face different adjudication outcomes. Some may succeed fully, others partially, and some may fail entirely. For example, a delay claim might be accepted in principle but with damages reduced by 40% due to concurrent delay findings. A differing site conditions claim could be rejected on liability but still influence settlement leverage. The key is structuring the analysis to reflect these sequential dependencies and probabilistic outcomes, preventing double-counting while revealing the true cumulative risk across all possible combinations.

The Critical Role of Subject Matter Experts (SMEs)

A decision tree is only as reliable as the probability assessments feeding it. This is where **Subject Matter Experts (SMEs)** become essential.

The SME team, comprising Scheduling, Cost, Technical Construction, and Contract/Legal experts, provides the necessary data points. For instance, a **Scheduling Expert** assesses Critical Path Method forensic techniques and schedule quality to determine delay recovery probabilities. A **Cost Expert** quantifies the damage recovery probability of using industry methods such as productivity, total cost analysis, or the use of the Eichleay formula.

De-Biasing Overconfidence

Even highly qualified experts suffer from overconfidence bias. If you simply ask an expert for their probability of success, they are likely to anchor on an over-optimistic number (e.g., "80% confident").

To generate truly realistic inputs, Decision Tree Analysis employs formal de-biasing techniques that systematically correct for cognitive biases. Below are two examples of effective techniques:

① Probability Wheel Method (per AACE RP 133R-23 Appendix A2)

This structured process converts a single, overconfident point estimate into a realistic probability distribution (P10/P50/P90) by forcing the expert to choose iteratively between betting on the event or a visual probability wheel.

- › Initial Claim: "80% confident"
- › Calibrated Result: P10 = 42%, P50 = 58%, P90 = 72%

② Consider the Opposite Outcome Technique

Before finalizing their estimates, experts pause to interrogate their

own thinking. They're asked to step outside their initial conclusions and imagine they're wrong. What would have to happen for this claim to collapse? Under what conditions might the opposite outcome emerge instead? What evidence would fundamentally challenge their reasoning?

This deliberate exercise in self-doubt serves a specific purpose: it uncovers the critical fault lines in their analysis – those pivotal factors or events that, if they occurred, would reveal their chosen assumptions or methodology to be mistaken. By forcing themselves to argue against their own position, experts begin to see what they initially missed. Blind spots that confirmation bias quietly reinforced suddenly become visible. Dependencies they'd taken for granted reveal themselves as fragile.

This technique, validated in decision analysis literature, forces experts to confront disconfirming evidence they may have initially dismissed, further broadening probability distributions and reducing anchoring effects. When combined with the probability wheel, this dual approach typically results in a 15-25% downward adjustment in initially stated confidence levels.

Practical Implementation: The Four-Step Process

Effective Decision Tree Analysis follows a disciplined four-step process [Framing, Analysis, Decide and Commit, Execution], transforming complex litigation choices into actionable intelligence.

Framing is where the subject matter experts cast a wide net to identify all viable alternatives and key uncertainties – ensuring that promising settlement structures or litigation strategies aren't prematurely dismissed.

Analysis is where subject matter experts build decision trees, calculate expected values, and deploy sensitivity tools to reveal which uncertainties create the greatest value swings. For instance, a Tornado Diagram might show that the probability of proving entitlement dwarfs the importance of float calculations in determining expected value, allowing negotiators to focus their energy on the factors that actually matter. When damage scenarios involve multiple interdependent variables, Monte Carlo simulation can confidently refine probability assessments.

The final two steps ensure that rigorous analysis translates into better outcomes. In the **decide and commit** phase, subject matter experts present findings to decision-makers with clarity: here's the expected value, here's the risk profile, and here's how it compares to the settlement offer on the table. The analysis must be compelling enough to genuinely influence the decision. If it is not influential, it's merely an academic exercise.

Finally, **execution** implements the chosen strategy, whether that means accepting a settlement, proceeding to discovery, or preparing for trial. This structured approach transforms gut-feel decisions into evidence-based strategies, reducing the risk of costly misjudgments driven by cognitive bias or incomplete information.

Advanced Technique: Value of Perfect Information (VOPI)

When events within the decision analysis model requires investment in order to have additional information aiding in controlling the risk of the outcome of that event, DTA can help decide if spending

money on more information is worthwhile. **Value of Perfect Information (VOPI)** analysis calculates the maximum value of eliminating an uncertainty (e.g., a critical path disagreement).

If the VOPI (**\$200K**) exceeds the cost of a joint expert (**\$75K**), then jointly retaining the expert is the rational choice for both parties. The expert's finding then narrows the uncertainty and enables rational agreement.

Case Study; \$150 million Data Center Project

A hypothetical complex \$150 million data center project finished eight months late and \$22 million over budget, leading to a high-stakes standoff. The contractor demanded \$22 million for delays and changes, while the owner counterclaimed with \$9.6 million in liquidated damages and \$1.8 million in construction defects, creating a daunting \$31.6 million dispute gap. Headed for a costly 18-month arbitration, the parties instead turned to a structured analytical method – Decision Tree Analysis (DTA) – to find a collaborative solution.

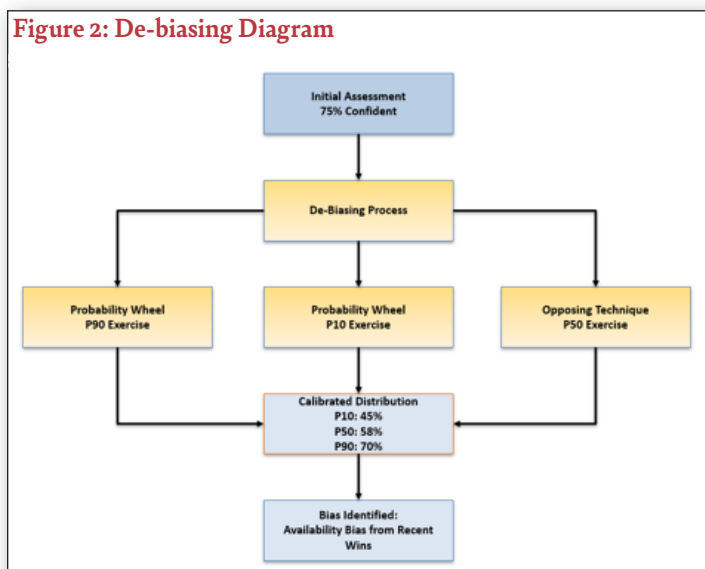
From Unrealistic Demands to a Reality Check

Before mediation, the contractor invested in a team of scheduling, cost, and legal experts to build a series of decision tree models. This process immediately provided a crucial reality check. The models showed that the contractor's "best-case" \$22 million demand had a realistic, probability-weighted expected value of only \$5.6 million, with a startling 22% chance of a negative outcome where they could lose millions. This data-driven insight shifted the contractor's focus from an anchored position to a rational settlement range of \$4-6 million.

A key part of the process involved de-biasing the experts. For instance, the scheduling expert's initial "75% confidence" in his delay analysis was calibrated through a structured process to a more realistic 58% median probability. The bias existed because the expert has implemented successfully the window analysis methodology in this last three appointments on different projects. This proved remarkably accurate, as a neutral expert later validated the core findings.

Figure 2 below illustrates the process.

The decision trees became a dynamic tool during mediation. In private caucuses, the mediator used the models to test both sides' assumptions in real-time. When the contractor's probabilities were



adjusted to reflect the owner's arguments, their expected recovery dropped from \$5.6 million to \$4.2 million. Conversely, when the owner's model was adjusted for the strength of the contractor's evidence, their expected exposure rose to \$4.8 million.

In just one day, the \$31.6 million gap between the parties had narrowed to a manageable \$600,000 zone of possible agreement.

The Breakthrough: A Data-Driven Investment

The biggest remaining hurdle was a deadlock over who was responsible for supply chain delays. Instead of arguing, the teams used a Value of Information (VOI) analysis. The model calculated that spending \$90,000 to hire a neutral, joint supply chain expert would provide a \$180,000 benefit by resolving the key uncertainty, justifying the collaborative investment for both parties. This transformed the negotiation from an adversarial fight into a shared problem-solving exercise.

The Hybrid Solution and Final Outcome

The insights from the DTA led to an innovative hybrid settlement. The structure included:

- › An immediate **\$4.0 million payment** for well-documented claims.
- › A **deferred resolution** where the joint expert's findings would determine the outcome of more complex delay claims according to a pre-agreed formula.
- › **Risk caps** that limited the maximum liquidated damages for the owner and eliminated the contractor's risk of a catastrophic loss.

Sixty days later, the expert delivered her report, finding 7.4 months of owner-critical delay. The final formula resulted in a total settlement of **\$5.1 million** to the contractor – an amount that fell squarely within the range predicted by the hybrid decision tree model.

The results were transformative. The contractor realized a total value of over \$13 million when accounting for \$1.14 million in saved litigation costs and a new \$80 million project awarded by the owner, a direct result of the preserved business relationship. The owner, in turn, saved nearly \$10 million in risk-adjusted exposure and avoided a potential earnings disaster. This case proves that by investing in rigorous, data-driven analysis, even the most complex disputes can be turned into opportunities for value creation.

Conclusion: Value Creation at the Table

Decision Tree Analysis provides the rigorous quantitative foundation that construction dispute resolution has always lacked.

It transforms mediation from a forum for vague posturing into a workshop for value creation. The process provides:

- › **Transparency** that builds trust and facilitates settlement.
- › **Reality testing** that moves parties from unrealistic positions.
- › **Rational decision-making** that maximizes expected value while managing risk.

By working through a decision tree, clients gain a deep understanding of every hurdle in their way and take ownership of the final strategy, leading to commitment, whether the decision is to settle or to proceed to trial. The future of dispute resolution lies in bringing this sophisticated decision science to the mediation table. 