AGENDA
CONSTRUCTION PROGRAM

CONSTRUCTION DAMAGES:
AN IN-DEPTH ANALYSIS

THURSDAY, JANUARY 24, 2013

WELCOMING REMARKS AND INTRODUCTION
8:45 – 9:00 AM

Kevin L. Lybeck
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Construction Damages: An In-Depth Analysis

SESSION 4

PRESENTATION 10 – PROVING DAMAGES IN A COURTROOM USING TESTIMONY, EXPERTS, AND DEMONSTRATIVE EVIDENCE; PRESENTING A DELAY CLAIM CASE TO A JURY
3:15-4:30 PM

Civil litigation in our adversarial system is a contest of wits, preparation, stamina and strategy. Every type of case and every forum for litigation presents challenges. Perhaps the most challenging is the jury trial. This session analyzes methods for proving some of the most complicated damages (delay and loss of productivity) in the most demanding forum (the civil courtroom) to the least sophisticated finders of fact (the jury). The panel includes a collection of experienced attorneys and consultants who will explore the psychology, techniques and strategies for making a convincing, winning trial presentation.
Contributors

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Proving Damages In A Courtroom Using Testimony, Experts And Demonstrative Evidence; Presenting A Delay Damages Case To A Jury
Civil litigation in our adversarial system is a contest of wits, preparation, stamina and strategy. Failure to excel in any of these areas often leads to defeat and client discontent. More troubling is the fact that intelligence, planning and endurance do not necessarily guarantee victory in the courtroom. Rather, success hinges upon the attorneys’ and the witnesses’ ability to persuade individual finders of fact and to convince the rulers of law. Where the law is clear and the facts indisputable, cases rarely go to trial. On the other end of the spectrum, the more complex, unpredictable, time-consuming and costly a case is, the more likely the parties are to seek resolution through mediation, settlement negotiations or other forms of alternative dispute resolution.

Even in the face of uncertainty, expense, and complexity, however, some cases just cannot be settled. When such unresolvable matters involve construction contracts, the parties must be prepared to address complicated technical issues, interpret multi-volume contracts, and shift through terabytes of project data. In an effort to “win,” many attorneys spend countless hours preparing the proof of entitlement believing that a strong entitlement case naturally leads to the award of significant damages. Consequently, some practitioners leave proof of damages in the hands of a lone expert or a crowded numbers chart. Yet, in many ways, proving damages is the most important aspect of the case. Indeed, winning entitlement but recovering inadequate damages means losing. After all, few clients take complex construction claims all the way to trial.
just to prove a point. On the contrary, clients brave the cost and risk of litigation in the hopes of recovering money lost at the hands of the defendant. Thus, to maximize the likelihood of victory, trial attorneys must demonstrate the same wit, preparation, stamina and strategy in proving damages as they do in the proof of entitlement. In a jury trial, such exertion does not guarantee victory, but it certainly maximizes the chances of meaningful recovery.

Proving damages in a breach of contract action poses its own set of problems distinct from the entitlement issues in the case. Even the rule of law may be elusive. As succinctly stated by one weary court:

The rules of law governing the recovery of damages for breach of contract are very flexible. Their application and the infinite number of situations that arise is beyond question, variable and uncertain . . . They must be regarded merely as guides . . . leaving much to the individual feeling of the court created by the special circumstances of the particular case.¹

Moreover, the trial court has broad discretion in ruling on the admissibility of damages evidence, including the exclusion of expert testimony.² Between the flexible law and the court’s broad discretion to exclude evidence, the trial team must bring its best effort to the proof of damages.

In a construction case, the complexity of the damages proof can be confusing, tedious and dangerously boring. Compounding this problem is the duration of the typical construction trial. The proceedings typically are measured in terms of weeks or months which puts a strain on the attention span and attitude of the finder of fact. During these prolonged trials, the presentation of evidence often involves huge databases of project records and many technical engineering and architectural entitlement issues. In the midst of this sea of information floats the evidence demonstrating the claimant’s damages. Complicating matters even further is the fact that the proof of some types of construction damages itself involves detailed technical analysis, complex calculations, and expert scheduling and/or accounting testimony. Indeed, delay and loss of productivity damages are the most complicated damages to prove. Thus, making a memorable, convincing proof of damages in a

construction case can be the difference between a meaningful recovery and a pyrrhic victory.

The method and articulation of damages proof may vary depending upon the forum in which the claimant finds itself. Although the formal rules of evidence may technically apply to all fora, from a practical standpoint, different tribunals have divergent evidentiary standards and varying levels of sophistication. This paper explores proving construction damages in various fora, identifies some of the tools for proving damages, and presents some suggestions for proving some of the most complicated damages (delay/loss of productivity damages) in the most demanding forum (the courtroom) to the least sophisticated finder of fact (the jury).

I. Comparative Fora

The choice of forum can have a significant effect on the presentation of delay damages. In the construction context, the parties typically select the forum for disputes when they execute the contract. Presumably, the parties are not seriously contemplating litigation at this juncture. Thus, they may not consider the best forum for bringing a delay claim at that point in their relationship.

Many large, complex construction contracts mandate arbitration as the means for resolving disputes. This choice takes resolution of the claim out of the hands of local courts with regard to the findings of fact, the rules of law, the location, and the schedule for the proceeding. The contract also may dictate that any court of competent jurisdiction may handle a dispute. Further, many construction contracts include enforceable waivers of a jury trial thereby increasing the odds that a more educated, sophisticated finder of fact will hear the evidence. In a private construction contract, the failure to address the manner in which a claim will be handled exposes the parties to the possibility of a jury trial in any court of competent jurisdiction. Claims against public entities, on the other hand, typically are limited to specified administrative procedures or special courts designated to address such matters. Although applicable statutes or regulations often mandate jurisdiction of disputes involving such public contracts, the contract itself also often includes a disputes provision mandating a particular procedure.
II. Proof of Damages Generally

Regardless of forum, contractors typically need only prove recoverable damages by a preponderance of the evidence. In other words, they need only show that it is more likely than not that they sustained the claimed damages.\(^3\) Notably, arbitrators sometimes slightly alter this burden of proof to require “a fair preponderance of the evidence” to prove a claim.\(^4\) Thus, rather than following rigid rules of law, arbitrators often allocate burdens with more flexibility in accordance with common sense, commercial experience and the interests of justice.\(^5\)

Long-standing, common law dictates that a claimant’s recovery is limited to those damages which, at the time of contracting, are the foreseeable result of a breach of contract.\(^6\) Moreover, a distinction exists between direct damages and what are known as consequential or special damages. This distinction between direct and consequential damages was articulated by the Virginia Supreme Court in the case of *Roanoke Hospital Association v. Doyle & Russell, Inc.*\(^7\) In the *Roanoke Hospital* decision, the court explained the two types of damages as follows:

There are two broad categories of damages: ex contractu; direct (or general) damages; and consequential (or special) damages. Direct damages are those which arise “naturally” or “ordinarily” from a breach of contract. They are damages which, in the ordinary course of human experience, can be expected to result from a breach. Consequential damages are those which arise from the intervention of “special circumstances” not ordinarily predictable. If damages are determined to be direct, they are compensable. If damages are determined to be consequential, they are compensable only if it is determined that the special circumstances were within the “contemplation” of both contracting parties. Whether damages are direct or consequential is a question of law. Whether special circumstances were within the contemplation of the parties is a question of fact (citations omitted).

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5.  Id. at 12.
In sum, both direct and consequential damages are recoverable if they were reasonably foreseeable at the time of contracting.

Notably, claimants need not prove damages with exactitude or specificity in order to recover. On the contrary, claimants need only prove their damages with a reasonable degree of certainty. Consequently, a degree of uncertainty as to the precise amount of damages incurred will not bar recovery.

Of course, the parties, by contract, may agree to impose additional burdens and restrictions upon the proof of damages. For example, many construction contracts demand that the contractor use specified overhead rates, comply with detailed accounting practices and employ specific methodologies to demonstrate delay and resultant damages. Furthermore, parties often contractually limit recoverable costs by inserting waivers of consequential damages, no damages for delay provisions, caps on recovery and other such limitations. Attorneys, experts, and lay witnesses must be intimately familiar with all such contract provisions and must present the damages proof accordingly.

III. The Finder of Fact

Regardless of the particular forum, construction delay damages claimants must decide how best to present their evidence to a finder of fact. Whether an arbitrator, a judge, or a jury, this finder of fact will determine whether the claimant was damaged, what types of damages were sustained and the extent of such damages. Of course, the aforementioned common law and contractual limitations may exclude certain damages from recovery, and the ruler of law must determine the legitimacy of such exclusions. Nonetheless, the finder of fact remains the primary audience for the claimant’s damages presentation.

A. Relative Levels of Sophistication

The sophistication of the fact finder varies depending upon the forum. In arbitration, the parties typically select fact finders with expertise in construction and engineering. Indeed, many arbitration clauses even

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mandate the level and type of industry experience for certain arbitrators. Consequently, in arbitration, claimants may be less concerned that the fact finder will misinterpret the damages presentation and more worried that the damages proof is not detailed enough to satisfy well-educated, industry-savvy, fact finders.

Still well educated, but typically less informed about construction, pricing and engineering issues is the bench trial judge sitting as fact finder in the absence of a jury. In a bench trial, the judge may have little construction experience but likely has sat through many damages presentations. Moreover, the judge in a bench trial often chooses to ask direct questions of both attorneys and expert witnesses in order to ensure full comprehension of damages, calculations and methodologies.

Jurors, in contrast, often are largely indecipherable with regard to their knowledge and experience with construction delays and resulting damages. The typical juror presumably has no experience in pricing complex construction claims. Indeed, many jurors have no specific industry education and bring their own bias, experience and varying attention spans to the trial. Depending upon the level of jury voir dire permitted in a particular jurisdiction, attorneys may have little, if any, understanding of a juror’s capacity to pay attention or to understand complex construction delay damages calculations. In short, in a jury trial, plaintiffs face a great unknown. Their fate lies in the hands of finders of fact about whom the plaintiffs may know little more than their occupation, age, gender and whether the juror is personally familiar with any of the litigants. Without specific knowledge of each juror’s experience and aptitude for comprehending calculations, attorneys seeking recovery of construction delay damages in a jury trial confront a multitude of potential obstacles.

B. Jury Hurdles

Every jury is slightly different and includes a mixture of educational levels, experiences, attention spans, and preconceived notions. With regard to proving construction delay damages, however, nearly all juries impose the same hurdles for claimants. These obstacles to victory include, but are not limited to, the following:

1. Education. It may be impossible to gauge the education level of the jurors. Consequently, attorneys cannot know whether even a majority of the jury can understand the technical language typically attendant to
presenting delay damages. Attorneys, experts and lay witnesses must be able to present such concepts as “labor productivity” or “extended home office overhead” using common, simple, understandable words and analogies. Even highly intelligent jurors who spend their days at home with young children, teaching Latin, or in non-technical/non-math oriented occupations will require an easy way to understand complicated damages issues to which they have never before been exposed.

2. Disappointment. Many jurors will be disappointed that they have been selected to serve on a case involving a construction contract dispute. Movies and television are filled with exciting trials involving deceit, corruption, fraud, and other fascinating vices. Most jurors already are reluctant to appear for duty. They typically are even more disheartened to learn that they must sit through presentations of evidence related to, for example, the late completion of a water treatment facility in a neighboring town or delays to concrete pours at a distant office complex. The fact that, in many jurisdictions, the case comes to trial years after the project in question already has been completed only compounds the juror’s sense of dread. Thus, attorneys and expert witnesses must dramatize the presentation, tell a story, and make it stick.

3. Long Duration. Complex construction trials often take a long time to complete. Thus, jurors must show up to the courthouse, sit, and listen for days and weeks on end. Try to imagine everything a friend said to you in a conversation you had three weeks ago. Now, imagine sitting in court listening to people you do not know talk about delays to a project you had never heard of in an effort to collect money using calculation methods that you do not understand. After three weeks, jurors often only recall their general impressions of testimony, not specific statements or calculations. Repeatedly, attorneys have lodged arguments in pre-trial conferences seeking more time in which to present the mounds of evidence necessary to prove their construction delay cases. When a jury is involved, however, attorneys for the claimant may wish to consider seeking shorter trial durations. The trial team should streamline the case to only the essential points, create a short story narrative, and send the jury to deliberations with a chance of remembering more than the attorneys’ final argument and the judge’s jury instructions.

4. Too Much Information. Due to the very nature of the claims, construction matters, and delay claims in particular, involve the presentation of huge amounts of data. In the electronic age, such matters often involve databases containing terabytes of project information. Over the course of a month long trial, jurors may be overwhelmed by the sheer
volume of information they are being asked to recall for the purposes of reaching a verdict. Attorneys must find a way to highlight in the jurors’ minds the information important to the claimant’s case. Witnesses who drone on about project background and day-to-day events may not be the answer. The goal is to have the jurors like, respect, and believe key witnesses on key points. Once that objective is achieved, the witness should step down. Less is more in this area.

5. Nobody Told Me There Would Be Math. Put simply, most people are afraid of math. Many comedians have gotten a laugh using the punchline, “nobody told me there would be math.” The fact that so many people find this amusing is testament to the general population’s dislike for, and fear of, complicated mathematics. Consequently, in presenting Eichleay formula calculations, critical path method schedule analyses, or de-escalated labor rates, attorneys must be cognizant of the jury’s basic reluctance to work towards a detailed understanding of the numbers. First, explain the concept behind the calculation in plain, simple English. Second, use an example or an analogy that helps the jury to understand how the claimant was damaged and why it is important for the jurors to consider the calculation. Third, keep the math simple. In daily life, most people are not called upon to perform mathematical calculations beyond addition, subtraction, multiplication and simple division.

6. Rigid Rules. Complicating the jury trial further is the fact that courts typically impose a more rigid application of the rules of evidence in this forum. In an arbitration, the arbitrators are free to consider whatever evidence they deem appropriate. Often arbitrators stray on the side of admitting evidence in order to avoid any post-arbitration accusation that important evidence was excluded. Similarly, in a bench trial, the judge who serves as both finder of fact and ruler of law decides upon the admissibility of the evidence which he/she will hear. This dual role often results in the relaxation of the rules of evidence with regard to the admissibility of documents and testimony. For example, some judges in bench trials adopt an “if a witness touches it, it’s in” approach to the admissibility of documentary evidence. Moreover, even the most sophisticated judge may not be able to completely disregard evidence deemed inadmissible after hearing an offer of proof or detailed arguments concerning admissibility. In a jury trial, in contrast, courts tend to impose a more formal adherence to the rules of evidence. Moreover, arguments concerning admissibility as well as offers of proof are heard by the judge outside the presence of the jury. Although admissibility of evidence concerning damages lies in the sound
discretion of the court and individual courts may differ in their adherence to the rules of evidence, attorneys preparing to present damages or other issues to a jury must anticipate strict compliance with the rules of evidence.

IV. Tools for Presenting Delay Damages to a Jury

The best tools for proving delay damage to a jury will depend, in large part, on the individual facts and circumstances of any particular case. Thus, for example, the extent to which any particular claimant should use lay witnesses versus experts to prove its damages will vary. However, almost every jury trial will involve some combination of source documents, summaries, graphics/animations, lay witness testimony, expert testimony, and jury instructions to present a powerful, persuasive and winning case.

A. Source Documents

Construction contractors typically produce enormous amounts of data related to project costs. Many contractors have individualized cost accounting systems which track labor, materials and equipment on a cost code or activity basis. Similarly, when claims arise on a project, sophisticated contractors often dedicate an individual cost code to capture all costs associated with a particular change or delay. Proof of delay damages requires more than a simple review of project-specific costs, however. For example, the essential predicate to recovery of delay damages is proof of the delay itself. Thus, in addition to the project cost records, claimants must also identify and admit into evidence scheduling data. Such data typically includes the baseline project schedule, periodic updates of the schedule, time extension requests and notice documents. Furthermore, when a construction project is delayed, claimants frequently seek recovery of resultant extended or unabsorbed home office overhead costs. Such costs may not be captured by project-specific accounting records. Under accepted methodologies such as the Eichleay Formula, for instance, proof of the claimant’s pool of home office overhead costs, contract revenues and company-wide revenues is also required. Finally, many companies do not specifically track equipment costs and must rely upon published manuals or indices to identify such costs. For companies that do track specific equipment costs, presentation of master equipment lists from the home office may be required.
Introduction of source documents in a long, complex construction trial can be cumbersome, boring, and time-consuming. However, these documents must be admitted into evidence to prove damages, to protect the record, and to preserve the contractor’s rights on appeal. Notably, techniques exist for short-cutting the otherwise exhaustive practice of introducing necessary source data. For example, many courts require the parties to exchange exhibits and objections prior to trial in an effort to streamline the process. Although certain opposing counsel make a point of objecting to all offered documents by a claimant, such obstinance usually is frowned upon by judges who are attempting to manage their dockets in the most expeditious and efficient manner possible. If the parties can stipulate to the admissibility of project cost and scheduling records, the claimant can proceed with the slightly more interesting task of presenting to the jury the delay and damages calculations.

As an aside, Rule 703 of the Federal Rules of Evidence permits an expert witness to base his or her opinion on facts or data that are not admissible into evidence if such facts and data are “of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject . . .” Under this Rule, information supporting, for example, loss of labor productivity need not be admitted or admissible in order to be relied upon for an expert’s opinion. Federal Rules of Evidence 703, however, is not a hearsay exception and may not be used as a means of admitting inadmissible evidence. More importantly, Federal Rules of Evidence 703 may not be used to circumvent the claimant’s obligation to admit evidence such as source documents establishing the factual bases for its damages. Although Federal Rules of Evidence 703 may be useful in presenting expert testimony, a much more potent means of presenting the information contained in source documents lies in Federal Rule of Evidence 1006 concerning summaries.

**B. Summaries**

Anything that simplifies the damages calculation and focuses the jury on entitlement will inure to the contractor’s benefit. Federal Rule of

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Evidence 1006 permits parties to present voluminous documents or data in a summary format. The Rule reads as follows:

The contents of voluminous writings, recordings, or photographs which cannot conveniently be examined in court may be presented in the form of a chart, summary or calculation. The originals, or duplicates, shall be made available for examination or copying, or both, by other parties at a reasonable time and place. The court may order that they be produced in court.

Under Federal Rules of Evidence 1006, the summaries actually are introduced into evidence and may be taken by the jury to the deliberation room. This elevates the value of the summary beyond that of mere pedagogical devices which summarize evidence already presented in court. Such demonstrative graphics often are not permitted to accompany the jury in their deliberations. In order for a summary to be admitted, it must satisfy five basic requirements. These include:

1. The underlying documents must be so voluminous that they cannot conveniently be examined in court;
2. The proponent of the summary must have made the documents available for examination or copying at a reasonable time and place;
3. The underlying documents must be admissible;
4. The summary must be accurate and non-prejudicial;
5. The summary must be properly introduced through the testimony of a witness who supervised its preparation.12

After weeks of trial, few jurors will be inclined to page through voluminous project cost records during deliberations. However, jurors may be drawn to summaries of such data as they piece together the verdict. The trial team, therefore, should consider using summaries to advance the claimant’s case.

C. Demonstrative Evidence—Graphics/Animations

In modern society, most jurors will be accustomed to impressive, synthesized displays of information. Through the internet, smartphones and tablets, even middle-aged jurors are accustomed to quickly receiving dramatic visual presentations of information. In the information age, the

12. United States v. Moon, 513 F.3d 527, 545 (6th Cir. 2008)
party who best satisfies this expectation in the minds of the jury has a
distinct advantage in presenting its case. Such demonstrative exhibits
typically have a dual function. First, they explain complicated
information to the jury. Second, if properly prepared, they can be
immensely persuasive. Notably, such devices often are not in and of
themselves admissible evidence. Rather, they serve as summaries of
evidence already presented or as tools to assist in the presentation of
admissible evidence. Consequently, the graphics, animations, or other
charts generally are inadmissible and are not permitted in the deliberation
room with the jury.\textsuperscript{13} Such demonstrative exhibits, therefore, must be
sufficiently memorable and comprehensible to stand out in the jurors’
minds after weeks of testimony and even if unavailable for the jury to
review during deliberations.

Early involvement by a competent expert in the creation of
demonstrative exhibits is essential when attempting to prove construction
delay damages to a jury. Such experts must be skilled in simplifying the
relevant information and organizing it so that the exhibits will have the
desired effect. Preparation of memorable, persuasive demonstrative
exhibits should follow eight basic principals of information design.\textsuperscript{14}

1. Limit Each Graphic Display to One Message

The more points a given exhibit attempts to make, the harder and more
time-consuming the exhibit is to understand. Moreover, multiple points
in an exhibit permit the jury to compare and contrast the various
messages giving rise to the potential for unwanted or diluted
interpretations.

2. The Fewer Words the Better

To the extent that a demonstrative exhibit must rely upon text, less is
more. The basic rule of writing provides that a shorter message carrying
the same amount of information is more powerful and persuasive. “Stop,

\textsuperscript{13} Pierce v. Ramsey Winch Co., 753 F.2d 416, 431 (5th Cir. 1985).
\textsuperscript{14} Edward M. Josiah, \textit{Using Technology to Present Your Construction Case: Making the Complex Simple and Persuasive – Part II}, 2011 Annual
Meeting of the American Bar Association Forum on the Construction
Industry, (citing Anthony J. Bocchino, James M. Dobson, Samuel H.
Solomon, \textit{What Juries Want to Hear II: Reverse Engineering the Verdict; TEMPLE LAW REVIEW, VOLUME 74, NO. 1: SPRING 2001}).
look, listen” is much more powerful on an exhibit than “when you get to the railroad tracks, stop, look up and down the tracks for a train, and then listen for the train before you cross the tracks.”

3. Avoid Bullet Point Exhibits

Such exhibits are not particularly persuasive. All demonstrative exhibits should drive towards a conclusion. Rather than bullets, present points in an equation format (Fact 1 + Fact 2 + Fact 3 = Conclusion). Such a presentation reduces the possibility that the jurors will misinterpret the facts and/or simply forget the purpose of the exhibit.

4. Keep It Clean

The more information that is contained in a demonstrative exhibit, the more the jurors must remember and the less likely they will be to carry the message with them into the deliberation room. Every piece of information on the exhibit, including color, size, arrows, texts, orientation and content should accentuate and focus on the singular message of the exhibit. Do not water-down the message.

5. Use Trial Exhibits as the Bases for Demonstrative Exhibits

Most construction cases focus on important contract clauses, project documents, drawings, schedules, or photographs. Where possible, use these trial exhibits as a platform for the demonstrative exhibits. Such use may involve extracting, highlighting and enlarging contract text. Boldly labeling and animating contract or as-built drawings is another effective technique. Progressive comparison of project schedule updates in a visual format and/or animating the collapse of an as-built schedule can be very dramatic and memorable.

6. Color Has Meaning

The goal of adding color to demonstrative exhibits is not to just make them pretty. Color conveys meaning in the minds of most jurors. For example, green typically means “go” and red often means “stop”. Use color intelligently and consistently. For example, the delay bar on every schedule exhibit should be the same color.
7. **Animate When Possible**

Still exhibits are standard. Rest assured that your opponent will use them. However, today’s courtroom often is equipped to accommodate electronic data, PowerPoint, videos and animated graphics. In some courtrooms, large visual monitors are permanent features. Use the available technology to impress the jury with animated construction sequences or escalating costs. In their day-to-day lives, the jurors have come to expect computer graphics and animations. Work with expert witnesses to give the people what they want.

8. **Content Trumps All Other Concerns**

While employing Rules 1 through 7 above, never forget or stray from the singular message of each exhibit. Eliminate from the exhibit any distraction from that message. No advantage exists in having the jury remember the exhibit but forget the message it was attempting to convey.

**D. Lay Witnesses**

Although summaries and impressive demonstrative exhibits may leave a lasting, persuasive impression in the minds of a jury, no substitute exists for good, well-prepared, credible lay witnesses. Such witnesses with personal knowledge of project events, documents, and photographs are absolutely essential for admitting needed evidence. With regard to issues such as delay and resultant damages, lay witnesses typically cannot offer opinion testimony nor should they be relied upon to present scientific, technical or other specialized knowledge testimony that will be opposed by the other party’s expert witness. At times, attorneys succumb to the urge to have lay witnesses present damages suffered as a result of construction delays. This urge should be resisted. First, construction scheduling and damages expert witnesses typically are much more capable and experienced in the presentation of such evidence. Second, even attempting to have a lay witness present delay damage testimony may preclude the claimant from subsequently attempting to provide more detailed calculations using an expert witness. The judiciary’s striving to
maintain efficiency in the courtroom often precludes any duplicative testimony. Similarly, if a lay witness can perform the calculation, then legitimate arguments may exist that scientific, technical or other specialized knowledge is not necessary to assist the trier of fact in understanding the evidence. Use poised, credible lay witnesses to get project cost records into evidence and to testify concerning delay events. Use experienced, knowledgeable expert witnesses to present schedule analyses and complex delay damage calculations.

**E. Expert Witnesses**

Effective use of expert witnesses is critical to prevailing in a jury trial on construction delay damages. Federal Rules of Evidence 702-706 address the evidentiary requirements for and resultant abilities of expert witnesses. As set forth in the Rules, qualified experts are granted exceptional powers at trial. For example, they may offer opinion testimony. They even may consider and testify based upon inadmissible facts or data in certain circumstances. Finally, they are the most memorable and persuasive tool for synthesizing mounds of data and presenting delay damages to the jury. Thus, failing to qualify an expert at trial and/or providing an ineffective expert witness devastates the contractor’s case.

**1. Daubert Limitations**

In today’s world of construction litigation, courts expect claimants to present schedule analyses and delay damage calculations through an expert witness. Indeed, failure to present and qualify an expert may preclude the presentation of complex schedule analyses and attendant delay damage calculations. In the last 20 years, the single most important case governing the presentation of expert witness testimony at trial is the decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). In *Daubert*, the court developed guidelines for the application of Federal Rules of Evidence 702 governing the admissibility of expert opinions based upon “scientific, technical or specialized knowledge.” Although a detailed legal analysis of *Daubert* and its progeny is beyond the scope of this paper, a more comprehensive explanation of the

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development of the law on this topic is set forth, in “Defending and Asserting Daubert Challenges in Construction Disputes.” As set forth therein, trial attorneys should consider the following questions when seeking to admit or strike expert witnesses:

1. Did the expert clearly identify the methodology used and the data and assumptions relied upon? If not, the expert may be subject to challenge.

2. How widely accepted was the methodology used by the expert? If the methodology is unique or not widely accepted, again, the expert may be subject to challenge.

3. Did the expert use applicable standards and, if not, did the expert provide a valid reason for ignoring such standards? Again, a “no” answer augers towards disqualification of the expert.

4. Did the expert cite to any treatises or other authority?

5. If the expert’s testimony was based on knowledge and experience, did the expert possess specialized knowledge or a particular expertise related to the specific area at issue in the case? If not, the court may be inclined to exclude the testimony.

6. Even if qualified to testify on particular subjects, did the expert provide opinions beyond the expert’s area of expertise? No expert is permitted to testify beyond the area of his/her expertise.

7. If the expert relied upon assumptions, to what extent were the assumptions supported in the record? Testimony based upon assumptions that are not supported by the record may be viewed as too prejudicial for presentation to the jury.

The trial team should closely evaluate these Daubert considerations both for the purpose of attempting to strike the opponent’s expert and attempting to admit their own.

2. Selecting the Expert Witness

The process of selecting expert witnesses should take place as early in the case as possible in order to coordinate efficient and effective

discovery and preparation for trial. Prior to choosing an expert, the trial team must identify each point in the order of proof for which expert testimony is required. The first step in selecting the expert is to identify candidates with the education, experience or other expertise in the needed areas of testimony in order to satisfy Federal Rules of Evidence 702. Equally important is that the expert have what is referred to as “good jury presence” and otherwise be trial worthy. Some of the characteristics of a trial worthy expert include the following:

1. Impressive Credentials. The expert should have sufficient credentials, experience, and industry affiliations to impress the jury that he/she is more knowledgeable than any other witness in the areas of scheduling and pricing. Jurors tend to be impressed by degrees or certifications that reflect intense study by the witness in the area of expertise. The perfect delay expert witness has hands-on experience actually preparing and updating schedules for an active construction project at some point in his/her career. This experience reveals to the jury that the expert is not just an academic but has been “in the trenches” and understands the vagaries of scheduling a troubled project. On the cost side, it is helpful if the expert has actually worked as a cost engineer or accountant at some point in his/her career. Familiarity with the scheduling and cost programs used on the project in question is another plus. Although many good expert witnesses/consultants exist who possess expertise in both scheduling and costs, claimants may wish to guard against presenting witnesses who appear to be experts in everything. Claimed expertise in too many disciplines may devalue the witness’s expertise in any one discipline from the jury’s perspective. Whether to use a single expert or multiple experts to present delay and resultant damages is a decision to be made on a case-by-case basis.

At this point, a word of caution is in order. In many respects, recovery of delay damages rests upon the jury’s trust, confidence and understanding of the scheduling and cost expert witness’s testimony. Neither the plaintiff nor the defendant can survive a loss of faith in this critical evidence. Yet, few attorneys thoroughly research the claimed credentials of these pivotal witnesses. Indeed, many attorneys may consider it insulting to the potential expert to question such basic resume elements as degrees confirmed, institutions attended, or years in practice. This is particularly true as the attorney works to construct a cohesive trial team aimed at stunning the jurors with the truth, simplicity and righteousness of the case. Nonetheless, the very credentials that draw
jurors to the expert will repel the fact finders if disproven at trial. Thus, a thorough examination of the experts’ claimed accomplishments should be a routine aspect of the witness retention process.

Consider the case of George A. Fuller Co. v. Kensington-Johnson Corp. In Fuller, the contractor relied upon the scheduling and delay analysis of its expert, Mr. R. M. Geller. However, after listening to the cross-examination of the expert, the court cautioned the contractor:

Not [to] buttress [its] argument based on any testimony of Mr. Geller because I find him to be totally incredible and place no credence in his testimony . . . the very first words from Geller’s mouth were misrepresentations: he misrepresented his career and his credentials.

Obviously, such misrepresentations are rare exceptions and the vast majority of construction scheduling consultants are truthful, accomplished individuals. However, with so much weighing upon the credibility and skill of such witnesses, verification of their “impressive credentials” is a prerequisite to putting such witnesses on the stand before the jury.

2. Familiarity with Industry Standards. A good expert witness also should be familiar with the industry treatises, practices and certifications. The best expert witnesses have a working knowledge of industry standards even if circumstances on the project in question preclude application of those standards. In such circumstances, the expert must be able to articulate a legitimate reason that standards or practices were not followed. The trial attorney does not want to learn for the first time on cross examination that his/her expert is not familiar with certain standard industry practices. More importantly, the jury may question the witness’s expertise and/or place undue emphasis upon a failure to follow a standard practice unless the expert can explain why the standard was inapplicable to the claim in question.

3. The Ability to Teach. As mentioned, the trial team cannot be absolutely certain of each juror’s ability to understand the technical, logical and mathematical aspects of scheduling and delay cost calculations. The perfect expert witness can reduce these procedures and calculations into simple, understandable words and concepts. Notably, this talent may be completely contrary to the same expert’s ability to

19. Id. at 15.
relate to fellow engineers or technical personnel serving on arbitration panels. An expert with good jury presence can teach the jury complicated formulas by using examples, analogies and basic vocabulary. A talent for teaching both effectively conveys the message to the jury and endears the expert to the jurors. Everyone loves a good teacher. Expert witnesses who are incapable of explaining the critical path or unabsorbed home office overhead to the jury in simple terms run the risk of being both misunderstood and considered arrogant by the jurors. Neither of these results benefits the case.

4. Poise. The expert must remain calm and poised under the pressure of intense cross-examination. In many ways, this ability is the direct result of proper preparation by the trial team. If properly prepared, the witness already will have considered answers to the opponent’s most difficult questions. However, if the witness tends to stammer, stray or become enraged by aggressive questioning, he/she may not be the best choice for a jury trial. Calm, dignified, intelligible and authoritative expert testimony is the goal.

5. Creativity. The expert must be creative and helpful in devising and designing demonstrative exhibits.

6. Availability. The best expert witnesses may be barraged by attorneys and claimants seeking assistance. Prior to selecting any expert witness, be certain to discuss the litigation schedule, the basic scope of work, and the foreseeable demands on the expert’s time. Get commitments from the expert to devote sufficient time to the preparation and presentation of the case. If the expert intends to have assistants or colleagues perform portions of the analysis, be certain to meet those individuals who will be addressing particular tasks, understand the extent of their involvement, and confirm their capabilities.

7. Appearance. All else being equal, an expert who looks the part may be more comforting and more easily accepted by the jury. As the result of modern media and advertising, most jurors have expectations about the appearance of experts in particular fields. This is not a question of whether an expert is physically attractive or of a particular gender. Rather, if all other factors are equal, it is a matter of selecting an expert whose appearance does not conflict with his/her claimed level or type of expertise. Jurors tend to react to visual cues as well as verbal ones. These signals include type of apparel, neatness, clarity of speech, posture and many others. Assuming that he/she fulfills the other necessary characteristics, choose the expert who appears competent, authoritative, experienced, and friendly.
3. Expert Witness Preparation

As indicated, the trial team should involve the expert witness as soon as possible in the litigation. The more the expert witness knows about the case, the more effective he/she will be in teaching the jury and withstanding cross-examination. Involve the expert witness in the document production to ensure the collection and analysis of source materials. Also of critical importance is to have the expert read and understand every pertinent contract provision, amendment, modification and change order. Often the contract sets forth requirements for schedule analyses or limits the types of costs that can be claimed. Moreover, modifications and change orders may give valuable information to the expert for the purposes of understanding practices concerning the application of overhead and other markups. The experts also should be consulted in both the preparation of key lay witnesses as well as the deposition of the opposing experts. Run through the experts’ responses to the predicted cross-examination. When preparing for trial, be certain to rehearse the experts’ testimony exactly the way it will be presented at trial.

Be certain that each expert witness understands the overall order of proof. Even in cases of witness sequestration, expert witnesses may be allowed to listen to and testify about evidence presented before their turns in the witness chair. Take advantage of this opportunity and ensure that the expert makes any necessary adjustments in his/her testimony to accommodate unexpected alterations in the trial plan. Traditional trial plans place presentation of the damages expert at the end of the order of proof. Unless a very good reason exists for altering this traditional order, maintain it. The expert not only will have the benefit of hearing all preceding evidence, but he/she will be able to help summarize that evidence and draw the appropriate conclusions for the benefit of the jury. The closer in time that such summaries and conclusions are presented to jury deliberations, the greater likelihood that the jury will remember them.

F. Jury Instructions

One of the most important and powerful tools available to a trial attorney is the jury instruction. If used properly, jury instructions both educate the judge on unfamiliar areas of law and provide a convincing legal framework against which the jury will decide the case. The judge
instructs the jury based upon instructions provided to the court by the parties. The court will not accept a jury instruction which appears to be biased, prejudicial or legally incorrect. Thus, the trial team must craft instructions which appear to be neutral and legally sustainable while steering the jury towards the desired conclusion. Notably, the court is not required to modify an improper instruction to make it correct.20 Nor is the court obligated to accept any particular instruction provided by the parties. Consequently, the trial team must balance its desire to submit partisan instructions against the likelihood that the court may reject such an instruction without modifying or correcting it.

Many courts immediately perceive pattern or model jury instructions as safe and unassailable versions of the applicable law. Use these where appropriate. The ABA Model Jury Instructions for Construction Litigation is a good place to start. Chapter 10 of the Model Instructions addresses damages and provides a helpful baseline on the topic. The trial team also should craft individualized instructions based upon relevant contract provisions. Unless deemed ambiguous by the court, interpretation of the contract is a matter of law for the court, not the jury. Hence, it is appropriate to craft jury instructions admonishing the jurors to comply with particular provisions of the contract. In the case of the contractor, specific instructions concerning bases for circumventing clauses such as a “No Damages for Delay” provision may be needed. Be certain that such instructions mesh neatly with the evidence. The jury instructions generally are the last pieces of information that the jury receives prior to retiring to deliberations. Do not neglect them.

V. Sample Presentation Techniques

In order to recover delay damages in a jury trial, the contractor must present simple, convincing and memorable explanations of entitlement and resultant damages. Developing a successful damages presentation requires the attorney and the relevant witnesses to fully understand the facts, the calculation methodologies, and the admissible evidence. Obviously, a prerequisite to explaining the damages to the jury is convincing the fact finders that compensable delay occurred on the project. All recoverable damages flow from the entitlement to such compensable delay.

A. Proving Delay

The first step in demonstrating entitlement to delay damages is to prove compensable delay at the hands of the defendants. Notably, courts have held that the circumstances existing at the project when the alleged delay occurs must be considered when evaluating the impact of a delaying event.21 Typically, a delay is only compensable if it impacts the project’s critical path.22 Furthermore, in order to be compensable, the claimant must demonstrate that it was not responsible for any “concurrent” delays.23 Finally, to the extent that multiple parties may have delayed the critical path, the contractor must be able to allocate responsibility for critical path delays to the various entities.24 All of these proofs must be made in the context of any restrictive contract clauses concerning scheduling methodologies and entitlement to recovery.25

A multitude of analytical methodologies exist for the purposes of demonstrating delay to the project’s critical path.26 Selection of the best methodology for presenting a given delay claim may depend upon contract language, available documentation, the provable facts, the

22. See, e.g., G.M. Schupe, Inc. v. United States, 5 Cl. Ct. 662, 728 (1984) (“If work on the critical path was delayed, then the eventual completion date of the project was delayed. Delay involving work not on the critical path generally had no impact on the eventual completion date of the project.”).
23. See George Sollitt Constr. Co. v. United States, 64 Fed. Cl. 229, 241 (2005) (“Because concurrent delays which do not affect the critical path of contract work do not delay the project completion, an accurate critical path analysis is essential to the determination of whether concurrent delays have caused delay damages related to the delayed completion of a complex construction project.”).
25. See, e.g., George Sollitt, 64 Fed. Cl. at 248 (describing contract specifications related to CPM schedule, requirements and pre-construction meeting minutes related to the CPM schedule submission requirements.
availability of lay witnesses, and the complexity of the project. Early involvement of the expert witness who will be preparing the analysis and providing testimony is critical to selecting the best analytical method for trial. Regardless of the chosen method, the key to persuasion is the ability to present the methodology in a clean, simple and readily understandable manner.

The delay damages claimant should never forget that the opposing party will be striving to present a more convincing, more easily understood, competing schedule analysis. Under such circumstances, even sophisticated, experienced finders of fact may be so baffled by the competing testimony that they give greater weight to other evidence in the case. A good example of this exists in the case of *Appeal of Cogefar-Impresit USA, Inc.* In *Cogefar*, the contractor’s scheduling expert compared the contractor’s as-planned schedule against a detailed as-built schedule asserting that all delay experienced on the project was at the hands of the government. In contrast, the government’s expert scheduler used a contemporaneous, timeframe analysis which compared windows of time and then evaluated the cause of delay. Using this approach, the government’s expert attributed 181 days of delay to the contractor. The

27. See, e.g., *G.M. Schupe*, 5 Cl. Ct. at 729-30 (“[T]he court is also persuaded of the validity of the defendant’s view of the critical path as opposed to plaintiff’s view because the court found the testimony of defendant’s expert who prepared the critical path to be both logical and convincing. The court was impressed with the thoroughness of his presentation of defendant’s critical path . . . [which is] in concert both with the events on the . . . project as they actually occurred during construction and with the method which plaintiff, itself, had scheduled the construction work at the outset of the project.”).

28. For example, in *Sunshine Constr. & Eng’g, Inc. v. United States*, 64 Fed. Cl. 346 (2005), the defendant’s scheduling expert “identified the critical path on the as-built schedule, compared it to the critical path on the as-planned schedule, and analyzed where activities may have been performed in the same time as was originally planned, may have been performed in a shorter time than original [sic] planned, or may have been performed in a longer time than originally planned.” *Id.* at 368-69. The court found the expert’s analysis to be persuasive and remarked that the expert’s “testimony and expert report are to be commended for their clarity, comprehensiveness, and reliability.” *Id.* at 369.

tribunal was perplexed. After listening to both expert presentations, the Board opined that:

These experts of impeccable credentials, attempt to convince the Board that their methods of delay analysis are scientific and precise. Given this evidence, we question the precision and value of CPM Analysis. We find that there is some merit to each side’s position . . . Our analysis takes into account the experts’ contrary opinions, but we give most weight to the other evidence on the record, and draw logical conclusions flowing there from.\[30\]

If the esteemed tribunal in Cogefar could not decide which “expert of impeccable credentials” provided the most accurate, truthful schedule analysis, what likelihood exists that a less well educated, less sophisticated jury will be able to make such a decision? Perhaps an advantage lies, not in which method is most scientific or accurate, but in how well the jury understands and remembers the expert testimony. Again, no single scheduling method is best for all cases. However, a simple, logical method such as, for example, an as-planned, as-built comparison may be dramatic and memorable in the minds of a jury.\[31\] Of course, every scheduling methodology has shortcomings and is subject to criticism. The expert witness must be able to both present the methodology in a simple, convincing fashion, and authoritatively respond to the inherent shortcomings in the chosen approach.

Notably, the Board in Cogefar ultimately favored the plaintiff’s schedule analysis because it reflected “the actual, as-built critical path of the Project.”\[32\] The plaintiff’s expert painstakingly constructed the project’s as-built schedule using the contemporaneous project records. He then identified the as-built critical path and compared the as-built schedule to the government-approved, as-planned schedule to demonstrate the cause and extent of delays. In contrast, the defendant’s expert based its critical path analysis upon the contractor’s monthly schedule updates submitted to the government. However, these updates did not reflect all of the changes to the work. Thus, the updates did not portray the manner in which the work had actually been performed. In

\[30\] Id.
\[31\] See, e.g., Sunshine Constr. & Eng’g Inc. v. United States, 64 Fed. Cl. 346, 368-69 (2005).
siding with the plaintiff, the Board noted that, “the CPM schedule must reflect actual performance to be a reliable basis for evaluating delay.”

**B. Labor Escalation**

One of the most obvious types of delay damage is escalation of labor, material and supply costs. Escalation is simply the additional cost incurred because labor is performed at a later, presumably more expensive, time period than originally contemplated. Normally, without a price escalation clause, the increased costs of labor are not recoverable if the contract is performed on schedule. If the owner delays the contractor, however, labor escalation costs are recoverable, resultant damages.

Three elements of proof are needed to recover labor escalation costs. First, the claimant must demonstrate its anticipated manloading schedule. Second, the claimant must prove its actual manloading schedule. Third, the claimant must be able to demonstrate the wage rates actually paid over the life of the project and the periods during which each rate was paid. Ideally, the contractor prepared an anticipated manloading schedule at the time of bid or prior to the start of the work. If no anticipated manloading schedule exists, the expert must prepare one based upon the original contract schedule. The expert must further allocate the number of workers needed to complete each activity on the schedule. He/she then can plot the total labor force on a time/labor force chart on a monthly or weekly basis. The expert also must prepare the actual manloading schedule from the daily foreman’s reports, payroll records or comparable documents. All such documents should be admissible into evidence. The actual manloading data should be plotted on the same time/labor force graph as the anticipated manloading data.

The final element of labor escalation involves the wage rate. The claimant can only recover if manpower is expended in a later, more expensive time period. Therefore, the expert must compare the

33. Id.
37. See, e.g., Id.
anticipated wage rates for the contract performance period to the actual rates experienced. Once the expert witness completes the man-hour allocation and establishes the wage rates, the computation is simple. Just multiply the man-hours by the appropriate wage rates on both the anticipated and the actual schedules. The difference between those two amounts equals the labor escalation claim. By employing the techniques for graphics and demonstrative evidence discussed earlier herein, the trial team should be able to prepare simple, consistent, and convincing labor escalation exhibits.

C. Material Escalation Costs

A delayed contractor may also face higher material prices. Calculating material escalation is similar to calculating the labor escalation. However, the contractor must be careful to establish that each item claimed could not have been purchased earlier. For example, the contractor may be able to demonstrate that limited storage space on the project site prevented early purchase of materials despite project delays. If specific project documentation does not exist demonstrating price increases (e.g., purchase orders, invoices and the contractor’s books), the contractor may rely upon industry-wide indices which illustrate the generally prevailing price fluctuations during the period of delay in various geographic locations. Again, a simple graph of comparative pricing and resultant material escalation damages is advised.

D. Extended General Conditions

When project performance is delayed, a contractor typically continues to incur jobsite expenses even in the absence of productive work. Costs for supervision, office space, storage, utilities, telephone service, insurance and other time-related costs continue to accrue. These are all recoverable as a result of owner-caused delay. The ease with which extended jobsite overhead costs may be presented to the jury depends upon the availability of and detail in the project cost records. First, the expert witness should explain what jobsite overhead costs are and how a contractor continues to incur them during delays. Using the project cost

records, he/she then can identify the specific line items of costs associated with field office overhead items. Keeping to simple math, the expert can divide the total field office overhead costs by the number of days over which the costs were accrued to arrive at a daily jobsite overhead or general conditions rate. The expert then need only multiple the number of days of delay by the daily overhead rate to arrive upon the extended general conditions claim. This formula is simple and widely accepted.\textsuperscript{40}

\textbf{E. Extended and Unabsorbed Home Office Overhead}

Home office overhead consists of indirect costs such as corporate officer salaries, legal and accounting expenses, rent, insurance and other general administrative costs incurred to maintain and operate the claimant’s home office. Home office overhead includes costs that the contractor incurs for the benefit of its entire business, not just the particular job which has been delayed. The project delay requires the contractor to allocate more home office overhead to that particular contract than contemplated in its original bid. As with jobsite overhead, when the owner delays contract performance, the home office overhead costs continue to accrue, even though the contractor’s income from the project is suspended or reduced.\textsuperscript{41} The case law permitting recovery of these extended overhead costs is long-standing.\textsuperscript{42} In essence, the contractor is entitled to recover as damages the amount of home office overhead on a daily basis allocable to the particular project and the period of delay for which the defendant is responsible.\textsuperscript{43} However, contractors do not necessarily allocate specific home office overhead costs to particular projects on a regular basis.


\textsuperscript{41} P.J. Dick Inc. v. Principi, 324 F.3d 1364, 1371 (Fed. Cir. 2003) (recognizing a contractor’s right to recover home office overhead when the Government directs a contractor to suspend work).

\textsuperscript{42} J.D. Hedin Constr. Co. v. United States, 347 F.2d, 235, 259, (Ct. Cl. 1965).

\textsuperscript{43} Id.
Consequently, unabsorbed or extended home office overhead is an item of damage that may be difficult to quantify. As a result, courts have developed various methodologies to determine the appropriate means of measuring and quantifying these damages. As with other breach of contract damages, the purpose of developing a method for measuring extended home office overhead is merely to place the contractor in the financial position it would have been in had the delay not occurred.

Different jurisdictions recognize varying methods of calculating home office overhead costs due to particular delays.\(^\text{44}\) In the federal context, the most common method of calculating unabsorbed home office overhead is through the Eichleay Formula.\(^\text{45}\) Over the ensuing 50 years since the decision in *Eichleay*, a multitude of courts have criticized, commented upon, accepted, and rejected the Eichleay Formula.\(^\text{46}\) At its core, the Formula is simply a way to allocate home office overhead costs to a delayed project. In its most simplistic form, the Eichleay formula involves a three step calculation.

\begin{align*}
\text{Step One:} & \quad \text{Project Contract Billings} \times \frac{\text{Total Home Office Overhead}}{\text{Total Company Billings} \text{ Incurred During Contract Period for Contract Period}} = \text{Overhead Allocable to Contract} \\
\text{Step Two:} & \quad \frac{\text{Overhead Allocable to Contract}}{\text{Actual Days of Performance}} = \text{Daily Contract Overhead} \\
\text{Step Three:} & \quad \text{Daily Contract Overhead} \times \frac{\text{Number of Days of Delay}}{\text{Number of Days of Delay}} = \text{Total Unabsorbed Overhead}
\end{align*}

The expert cost witness should be prepared to explain the purpose of the formula as well as the three-step, mathematical calculation. A properly devised jury instruction should acquaint the court with the law concerning unabsorbed home office overhead calculations and assure the jury of its obligation to award such costs. This home office overhead calculation along with the schedule analysis are some of the most

\begin{align*}
\text{44.} & \quad \text{Berley Indus., Inc. v. City of New York, 45 N.Y.2d 683, 688, 385 N.E.2d 281, 283 (N.Y. App. Div. 1978) (criticizing use of Eichleay formula).} \\
\text{45.} & \quad \text{Eichleay Corp., A.S.B.C.A. No. 5183, 60-2 B.C.A. ¶ 2688 (1960) aff’d, 61-1 BCA ¶ 2894 (1961).} \\
\text{46.} & \quad \text{Westgate v. Allstate Boiler, 147 F.3d 1368 (Fed. Cir. 1998).}
\end{align*}
complicated aspects of the delay damages claim presentation. The entire trial team must work to make this presentation simple, convincing and memorable.

Notably, other jurisdictions have adopted alternative formulas for calculating extended or unabsorbed home office overhead. For example, New York State recognizes what is commonly referred to as the “Manshul Method.”\(^{47}\) In the early stages of litigation, the trial team should research the appropriate methodologies accepted in the jurisdiction in which the claim will be brought.\(^{48}\)

\section*{F. Inefficiency/Loss of Productivity}

Delays may result in acceleration, changes, or other alterations to the work plan which impact anticipated labor productivity. When compared to direct labor and material costs, loss of labor productivity is more difficult to document and to quantify. Fortunately, Courts have long held that loss of labor productivity costs are recoverable even where such costs cannot be proven precisely. For example, in \textit{Luria Brothers and Company, Inc. v. United States},\(^{49}\) the court opined:

\begin{quote}
That loss of productivity of labor resulting from improper delays caused by defendant is an item of damage for which plaintiff is entitled to recover admits of no doubt; nor does the impossibility of proving the amount with exactitude bar recovery for the item.
\end{quote}

Needless to say, calculating and presenting labor productivity losses is one of the more difficult and perplexing tasks facing the trial team. The best approach often involves some form of comparing the contractor’s normal labor productivity to the actual productivity resulting from the claim event. Thus, if project records and the expert witness are capable of comparing similar activities on the same project on an impacted and non-impacted basis, that presentation presents the greatest

\begin{itemize}
\item \textsc{William Schwartzkopf} \& \textsc{John J. McNamara}, \textsc{Calculating Construction Damages}, Second Edition, §§ 6.05, 6.06, 6.13 (8/20/12-Update) (discussing various methodologies accepted by states for calculating home office overhead claims and distinguishing between extended and unabsorbed home office overhead).
\item 369 F. 2d, 701, 712 (Ct. Cl. 1966).
\end{itemize}
likelihood of success. This method, often referred to as a “measured mile analysis,” is widely accepted. Of course, depending upon the specifics of the case, other methodologies also may be successful.

In the absence of data permitting a measured mile comparison, the contractor may have no alternative but to calculate additional labor hours by estimating what the work productivity would have been and comparing it to the actual rate. In order to do this, the contractor may need to produce evidence of productivity for similar work on other, similar contracts. Obviously, the greater the similarity between work activities and contracts, the more persuasive this evidence will be. The contractor also may look to the expert witness to perform project productivity studies and/or refer to industry standards and estimating manuals for guidance in developing loss of productivity claims.

As with other complex damages presentations, the expert witness should explain the basic concepts behind the calculation prior to embarking upon the calculation itself. This approach helps the jury to place the calculation in context and to understand why it should attempt to understand the methodology.

VI. Conclusion

Presentation of delay damages to a jury is an unpredictable endeavor at best. In every aspect of discovery, expert selection, demonstrative exhibit development, and trial preparation, the trial team must strive to present the evidence in a simple, memorable, and persuasive fashion. Even then, over the course of a long and at times tedious construction trial, the jurors’ attention will wane. Moreover, jurors will take note of issues such

53. Recognized estimating manuals include the RS Means catalogue and Mechanical Contractors Association of America (MCCA) Bulletins.
as posture, clothing, mannerisms and other factors which have nothing whatsoever to do with the entitlement and quantum issues in the case. Practitioners should never forget that the primary audience in the courtroom for every aspect of the presentation is the jury. The more the jurors perceive the contractor as a likeable, understandable and efficient party who was wrongfully damaged by the defendant, the greater the likelihood that it will award delay damages. The trial team must, therefore, be fully prepared and present a clear damages methodology to ensure the maximum possible recovery.