

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF GEORGIA
MACON DIVISION**

TRANE US INC.,)	
)	
Plaintiff,)	
)	
v.)	CIVIL ACTION NO. 5:17-cv-42-MTT
)	
)	
YEAROUT SERVICE, LLC, et al.,)	
)	
)	
Defendants.)	
)	

ORDER

Defendants GSC Construction, Inc. and Allied World Specialty Insurance Company moved to exclude expert testimony by Randy P. Lynn, proffered by Defendant Yearout Service, LLC. Docs. 82; 129. Yearout then moved to exclude GSC’s and Allied World’s expert, Robert Colby. Doc. 127. Both motions were untimely because they were filed or renewed shortly before the pretrial conference, long after the deadline for filing *Daubert* motions. Yearout’s motion was particularly irksome because it was filed as a routine motion in limine. The Court summarily denied Yearout’s motion. Doc. 131. GSC’s *Daubert* motion was untimely only because it had not been timely renewed after the Court dismissed the motion without prejudice upon the cancellation of a previous trial setting. But at least it had been fully briefed. Still, the late renewal of the motion allowed little time for consideration of the significant issues it raised. So while the Court could have ignored both motions, the parties’ respective expert disclosures contained so many problematic opinions that the Court could not allow their experts to

take the stand without some vetting. Accordingly, there unfolded the rather truncated events discussed in this Order.

I. BACKGROUND

This case concerns a dispute between GSC, the general contractor on a design-build hangar renovation at Robins Air Force Base, and Yearout, a subcontractor responsible for providing a “turnkey mechanical and plumbing system.” Docs. 18-1 at 10; 109 at 1.¹ The trial had long been specially set to begin the week of June 3, 2019, and the parties filed their *Daubert* motions shortly before the May 15, 2019 pretrial conference. Docs. 116; 127; 129; 137. Because of the Court’s doubts about both experts, it ordered the parties to designate the particular expert opinions which they believed, consistent with the obligations of Rule 11, were admissible. *Id.* In response to that Order, GSC and Allied World made clear that they only intended to use Colby to rebut Lynn’s opinions. Doc. 142. Yearout withdrew some, but not all, of Lynn’s opinions. Specifically, Yearout maintained that Lynn’s opinions on the following costs incurred by Yearout were admissible: (1) the actual cost of the expedited delivery of fans, (2) the estimated cost of “extended general conditions,” (3) the actual cost of overtime, (4) inefficiency “costs” due to overtime, and (5) inefficiency “costs” due to working two shifts. Doc. 147 at 3; see Doc. 158-2. Yearout also maintained that Lynn’s testimony regarding certain claims by GSC against Yearout was admissible. Doc. 147 at 3. The Court convened a *Daubert* hearing on May 29, 2019, and as Lynn took the

¹ Initially, Yearout sued GSC’s surety, Allied World. *Yearout v. Darwin*, 5:16-cv-568, Doc. 1 (Dec. 29, 2016). Then Trane U.S. Inc., a company hired by Yearout to provide makeup air units for the project, filed its own complaint against both Allied World and GSC. Doc. 1. The cases were consolidated under 5:17-cv-42, with Trane as the Plaintiff. Doc. 20. Trane settled its claims, Doc. 159 at 2, and the remaining claims are disputes between Yearout, on the one hand, and GSC and Allied World, on the other.

stand, Yearout withdrew his testimony regarding GSC's claims. After Lynn's testimony, the Court excluded his opinions on expedited fan delivery, extended general conditions, and actual overtime costs because those opinions did not even purport to be based on any specialized knowledge or methodology; rather, Lynn just provided his interpretation of the facts and, frequently, his opinion on legal issues, such as contract interpretation. See Doc. 158. His opinions on inefficiency "costs" from overtime and shift work, by contrast, at least purported to be based on some methodology. Accordingly, although the Court made an oral ruling excluding his opinions on those inefficiency "costs," it noted that a written order would follow.

II. DISCUSSION

A. *Daubert* Standard

Rule 702 of the Federal Rules of Evidence provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Trial courts are to act as "gatekeepers" to ensure that speculative and unreliable opinions do not reach the jury. *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579, 589, n.7 (1993). Trial courts must (1) determine whether the expert has the qualifications to offer his opinions, *Poulis-Minott v. Smith*, 388 F.3d 354, 359 (1st Cir. 2004); see also *United States v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004); (2) "conduct an exacting analysis' of the *foundations* of expert opinions to ensure they meet the standards of admissibility," *Frazier*, 387 F.3d at 1260 (quoting *McCorvey v. Baxter Healthcare Corp.*,

298 F.3d 1253, 1257 (11th Cir. 2002)) (emphasis in original); and (3) ensure that the expert testimony is relevant and will assist the jury, see *Daubert*, 509 U.S. at 591.

B. Analysis

Lynn opined that Yearout incurred expenses of \$281,481.96 due to overtime inefficiency and \$50,390.59 due to shift work inefficiency. Doc. 158-2 at 69-70. Lynn used one methodology to calculate Yearout's loss due to overtime inefficiency and another to calculate its loss due to shift work inefficiency. Both methodologies are seriously flawed.

1. Overtime inefficiency

Lynn estimated Yearout's overtime inefficiency costs simply by using payroll records and a "productivity index' table" from "Management Methods Bulletin OT1 – 2011," a publication of the Mechanical Contractors Association of America, or MCAA. Docs. 158-2 at 67-68; 158-4. This trade bulletin attempts to quantify two ideas: first, that as a construction worker works more hours, productivity *can* diminish. A person working 60 hours per week may perform more total work than someone working forty hours per week, but still perform less work per hour. Second, a person working overtime may suffer diminished productivity in consecutive overtime weeks. A person placed on a fifty-hours-per-week schedule may be more productive in the first week than in the second, and more productive in the second than in the third.

It is helpful at the outset to address what the MCAA attempts to do in this bulletin and in its bulletin addressing shift work inefficiency, discussed below. The MCAA is a trade organization for mechanical contractors. The overarching purpose of the MCAA bulletins is to provide mechanical contractors with negotiating tools: primarily prospectively, to obtain more favorable contract terms, but also retrospectively, to

support claims for additional compensation. The bulletins are not, nor do they purport to be, peer-reviewed studies determining whether overtime and shift work “inefficiencies” exist and, if they do, how these “costs” can be calculated. Significantly, as Lynn acknowledged, there is in the industry a methodology for precisely determining such costs when they are established to exist. It is called the “measured mile.” The measured mile methodology uses actual facts and data from a project to demonstrate whether a contractor or subcontractor has incurred additional costs as the result of inefficiencies and quantifies those costs based upon actual data.

Although the MCAA itself “has not prepared an empirical study,” its bulletin uses data compiled from four other studies to estimate overtime inefficiency. Doc. 158-4 at 126. The data are summarized in a table with the number of consecutive weeks listed in the leftmost column and the number of hours per week listed in the topmost row. The table contains an entry for each combination: so, for example, if a worker were in his second consecutive week of working 70 to 72 hours, he would work at 80% efficiency that week, according to the table. *Id.* at 134. Mr. Lynn went through Yearout’s payroll records to determine, for each employee, the length of the workweek and the number of consecutive weeks worked; then applied the appropriate percentage from the MCAA productivity index; and then determined how many hours were lost to inefficiency. He used those numbers to calculate the total value of the time lost: \$202,388.00. Doc. 158-2 at 67-69; Exh. DY-109. He then added markups: 4% for tools, 4% for consumables, 12.5% for additional foremen costs, and 10% for overhead; then 5% for profit; for a total of \$281,481.96 in costs. Doc. 158-2 at 69.

The problems with Lynn’s testimony start with the MCAA bulletin, which bases its percentages table on the four studies. The bulletin, however, provides almost no

information about the studies themselves. The first study, the Business Round Table, examined data from twelve weeks of one construction project to “demonstrate[] that, in general, inefficiency increases as the overtime schedule extends in duration.” Doc. 158-4 at 129. A second source of the MCAA numbers is a study by an electrical contractors’ trade group, NECA, based on a survey of electrical contractors. *Id.* The MCAA argues that the NECA study translates to mechanical contracting because “[i]t is a generally accepted axiom in the construction industry that efficiency impacts sustained by the mechanical trades are similar in nature to the inefficiency impacts sustained by the electrical trades given reasonably comparative adverse conditions.” *Id.* n.9. Nowhere is this “axiom” supported.² The third study, authored by an engineer, appears to only have data for overtime loss for 50-hour weeks. *Id.* at 129-133. “Appears” because the Court, short of purchasing a copy of the study, has no way to tell what the study actually did.³ The fourth study, by the Army Corps of Engineers, “was widely used . . . until the Corps formally withdrew this publication several years ago for unspecified reasons.” *Id.* at 130. Despite the ACOE’s formal withdrawal of their study, the MCAA finds it “noteworthy that *Publication EP 415-1-3*, which contained the Corps’ overtime study, has never been *repudiated* by the Army Corps of Engineers.” *Id.* (emphasis added). The distinction between “withdrawn” and “repudiated” eludes the Court.⁴

² At the hearing, the Court noted that the bulletin “uses several times the words ‘axiom’ and ‘axiomatic.’” “As an expert in this field,” the Court asked Lynn, “what does that mean to you?” Lynn: “That doesn’t mean anything to me, Your Honor.” The Court: “It doesn’t mean anything to me, either.”

³ The same holds true for the others: none of the four studies was made available to the Court, and Bulletin OT1’s review of the studies is cursory.

⁴ The MCAA likewise defends all four studies by observing that, although the studies have been criticized, “the baseline data in any of these studies have never been proven to be inaccurate.” Doc. 158-4 at 4.

The MCAA OT1 methodology, therefore, depends on four studies: one which only focused on one project, another based on a survey of electricians, and another of which has been withdrawn by its publisher. And none of which has been made available to the Court. Further, certain entries in the overtime table may not even be based on all four studies: for instance, the table contains entries for “84 hrs/wk,” but based on the bulletin’s graphs, the NECA study was the only one that even gathered any data on 84-hour weeks. *Id.* at 133-34. Similarly, the data for 70-hour weeks, which were used frequently by Lynn’s report, appear to be based only on the NECA study and the (withdrawn) COE study. *Id.*

Without access to the underlying studies, the Court had to rely upon Lynn’s knowledge of the studies. However, Lynn has not even read the studies.⁵ So even if the MCAA’s asserted “axiom” that the relationship between overtime and inefficiency is the same for electrical contractors and mechanical contractors were true, and even if the Court were to accept the MCAA’s contention that the COE study has only been withdrawn, not repudiated, the Court still could not conclude that this methodology has any reliability.

In its briefing, Yearout represented that other courts had accepted the MCAA methodology. After the Court ordered the parties to submit only the *Daubert* opinions

Ipse dixit—it is true because I say it is true—in the world of *Daubert* is bad, but this is worse. The four studies’ data are valid, says the MCAA, because no one has proved them invalid.

Also, defending the accuracy of the data misses the issue: the problem with the Business Round Table study, for instance, is not that the underlying data are inaccurate, but that the underlying data are limited to one project over twelve weeks. The problem with the NECA study is not that its data are inaccurate, but that it considered electrical work, not mechanical work. So the MCAA’s observation that no one has proved the underlying data inaccurate is not only logically flawed, but also unresponsive to the studies’ critics.

⁵ At least, he had not “read the whole study” by the Business Roundtable, though he “might have seen excerpts” of the NECA one. Nor did he know the methodologies used by any of the four studies, whether they had been peer-reviewed, or those studies’ limitations.

they believed, consistent with Rule 11, were admissible (Doc. 137), Yearout represented that “Mr. Lynn’s opinions with respect to the quantification of Yearout’s lost productivity claim are based on [his own experience and] his use of industry studies that have been accepted and used in federal contract disputes.” Doc. 146 at 8. That representation was not true—at least not based on the cases Yearout cited. Instead, those cases, most of which were before the Board of Contract Appeals, referred to something called “Factors Affecting Labor Productivity.” That methodology, published in Bulletin No. PD2, lists sixteen different factors which may cause overtime inefficiency, including “Stacking of Trades,” “Morale and Attitude,” or “Season and Weather Change.” Bulletin PD2 then provides percentage impacts for different levels of severity for each of the sixteen factors. The cases Yearout cited referenced the sixteen-factor methodology in Bulletin PD2, not the methodology from Bulletin OT1 used by Lynn.⁶ At the hearing, the Court showed Lynn a copy of Bulletin PD2 and asked Lynn whether he had used that methodology. He responded that he had not. In short, Yearout’s briefing did not support the methodology Lynn used.

Next, the Court considers whether “the expert has reliably applied the principles and methods to the facts of the case.” Fed. R. Evid. 702. As noted, Lynn simply took the payroll records and applied the percentages listed on the MCAA table. Two examples, from the first and second pages of the dataset Yearout submitted, illustrate his method. First, according to the payroll records, Employee BO9410 worked 69 hours the week of 1/17/2016. Exh. DY-109 at 1. It was that employee’s first week of

⁶ Not to suggest that the Court finds the other, sixteen-factor methodology admissible under the *Daubert* standard. The determination of whether a given factor was “minor,” “average,” or “severe” leaves the expert wide discretion, and the determination is an inherently subjective one. The one commendable feature of the sixteen-factor method is that, unlike Lynn’s method, it requires the expert to at least consider the actual conditions of the project.

overtime, so Lynn applied the Productivity Table entry for 1 consecutive week of working 70-72 hours, which results in 14% inefficiency.⁷ Based on that number, Lynn calculated an inefficiency cost of \$380. *Id.* Second, according to the payroll records, a different employee, DA1093, worked overtime shifts the weeks of 1/17/2016, 1/24/2016, 2/28/2016, 3/6/2016, and 3/13/2016. *Id.* For the week of 2/28/2016, Lynn applied a 27% inefficiency percentage, and for the week of 3/6/2016, he applied a 32% inefficiency percentage, which led to inefficiency expenses of \$1400 for those two weeks. *Id.* at 2. Both weeks were 70-72 hour weeks, and Lynn appears to have applied the inefficiency percentages for the third and fourth consecutive weeks of 70-hour-per-week overtime. *Compare* Exh. DY-109 at 2 *with* Doc. 158-4 at 134. While it is true that Lynn's data indicate that the weeks of 2/28 and 3/6 were DA1093's third and fourth weeks working overtime, they were not consecutive. Rather, the week of 2/28 was the first time in approximately a month that DA1093 worked overtime. According to the MCAA, however,

Experience indicates that a return to a normal 40-hour schedule tends to 'reset' the productivity of a crew, such that if the crew returns to an overtime schedule after a week or two of a normal schedule, the productivity loss would 'reset' to that of the first week of overtime. Thus, when utilizing any of the data provided herein, it is important to know the work schedule of the crews working overtime. If using a study that shows a progressively increasing loss of productivity over time, should a crew cease overtime and return to a straight time schedule, the crew's inefficiency upon resuming overtime work must be reset to normal production for the first measured period.

Although it is true that Lynn's evaluation proceeds by individual employee, rather than by crew, he provides no explanation why a month without overtime wouldn't "reset"

⁷ According to Bulletin OT1, the employee may have been slightly more efficient working 69 hours than working 70-72 hours. However, Lynn uses the higher inefficiency rate, presumably because the MCAA table does not provide a rate for 69 hours.

DA1093's schedule. While application errors could be a significant issue in *Daubert* analysis, their significance here is overshadowed by the fundamental errors in the MCAA "methodology."

Perhaps more significantly, it was clear from Lynn's deposition and the Court's *Daubert* hearing that he based his opinions only on the payroll records, not on any investigation of the project itself. Again, Bulletin OT1 does not say that overtime *always* diminishes labor productivity, but only that it "*can* result in a substantial loss of labor productivity." Doc. 158-4 at 139 (emphasis added). Similarly, the bulletin claims that overtime costs "*may* exceed the increased costs of the premium pay associated with an overtime work schedule." *Id.* at 125 (emphasis added). At the hearing, Lynn admitted that the bulletin does not claim that this is true for every project, and he also admitted he did not investigate whether it was true for the hangar project. According to the bulletin, the reasons for potential productivity loss "can include fatigue, increased absenteeism, increased incidence of accidents, reduced morale, and a more negative work attitude." *Id.* at 2. But Lynn never performed any investigation into whether these conditions actually existed during the relevant weeks of the Project. He did not visit the job site, nor did he make inquiries about the actual conditions of the hangar project. Doc. 92 at 40:20-41:7. Responding to this issue at the hearing, Lynn argued that he knew Yearout suffered labor inefficiency because it took Yearout's workers more man-hours to complete their work than Yearout's management had estimated. Even if exceeding a subcontractor's estimate is a reliable indication that labor inefficiency in fact occurred, there are myriad reasons a worker could work slowly: a heatwave, other contractors' interference, mismanagement, simple mistakes, an influenza outbreak, or an over-optimistic estimate of the time required are all *potential* reasons why a given task may

have taken longer than anticipated. True, loss of labor productivity due to overtime work is one possibility. But Lynn did not offer any evidence that that possibility was a cause of the low productivity on the hangar renovation.⁸

Lynn's testimony is based on an inconsistent and one-dimensional application of a trade group's statistical table based on a small set of limited or withdrawn studies that have not been made available to the Court or even read by Lynn. And Yearout's brief defended the testimony by citing cases which used a different methodology altogether. The testimony is clearly inadmissible under the standards of Rule 702 and *Daubert*.

2. *Shift work inefficiency*

Yearout also proffered Lynn's testimony that Yearout incurred labor costs of \$50,390.59 as a result of inefficiency from working two shifts. On this topic, Lynn estimated Yearout's labor inefficiencies "using information from the MCAA Management Methods Bulletin OT2 – 2011." Doc. 158-2 at 69.

Bulletin OT2 – 2011 simply describes different ways in which shift work can impact labor efficiency. Doc. 158-5 at 143. For example, when a second shift works at night, the mechanical contractor may need to provide artificial lighting. *Id.* One shift might organize the on-site tools differently from how the other shift organizes them. *Id.* People tend to be more tired at night, which is when second shifts often work. *Id.* The employer may have to hire new people to fill night shifts, and those new people may

⁸ Once again, the documentation Lynn purported to rely on for the labor cost overruns was not submitted to the Court. Further, the fact that Yearout's employees took longer to do the work than they had estimated is unsurprising to anyone familiar with this litigation. Both Yearout and GSC brought claims against each other for delaying each other's work. It is unlikely any party would dispute Lynn's observation that Yearout's workers were less productive than expected, but his statement that the *cause* of that low productivity was shift work is purely conclusory. Put differently, one of the fact issues in this case is why the project was delayed, and it is circular to argue that (i) the project was delayed by overtime inefficiency, and (ii) there was overtime inefficiency because there was a delay.

work more slowly than more experienced workers. *Id.* at 144. Workers might drink more, or be more likely to drink, for night shifts. *Id.* On the other hand, shift work may cut down on overhead (by getting more use out of items rented at a daily or monthly rate), and sometimes the temperature is more comfortable at night than during the day. *Id.* at 144-45. The three-and-a-half-page bulletin simply lists potential disadvantages and, although fewer, potential advantages, to working two shifts. Nowhere in that bulletin is there any data, merely speculation.

Moving on to Lynn's application of this "methodology," he states in his report that on the basis of Bulletin OT2, he estimated that the first shift on the hangar project suffered a 10% loss in productivity and the second shift suffered a 20% loss, for a total cost of \$35,670.93. Doc. 158-2 at 70. After markups for tools, consumables, additional foremen costs, home office overhead, and profit, he claims Yearout incurred total costs of \$50,390.59 due to lost productivity from shift work.

As with overtime inefficiency, Lynn did not do any investigation to determine whether any of the OT2 factors actually existed on the hangar project. And Bulletin OT2 says that shift work *may* affect productivity, not that it always will. Doc. 158-5 at 143. Lynn, however, not only assumed that shift work *did* affect productivity on the hangar renovation, but also he assigned percentages to that effect. Unable to find any basis for those percentages in Bulletin OT2, the Court asked Lynn where his percentages had come from. In response, Lynn first claimed the percentages came from Bulletin OT2, then were "tempered" based on his personal experience. The Court asked him which part of Bulletin OT2 supplied the basis for those percentages, and Lynn said he could not answer without re-reading the relevant section of the bulletin. The Court gave him time to do that, and Lynn then admitted those percentages came "from my experience,"

not from Bulletin OT2. It turned out that Lynn, without any investigation into the conditions of the project itself, simply stated percentages based on his “personal experience.” But Lynn’s personal experience is not by itself a sufficient basis for him to assert that Yearout actually suffered a 10% productivity loss on the first shift and a 20% loss on the second shift during the hangar renovation at issue. With no methodology and no factual basis for those claims, Lynn’s testimony on shift work inefficiency lacks foundation, relevance, reliable principles and methods, reliable application, and helpfulness to the jury. It is clearly inadmissible.

III. CONCLUSION

To be clear, the Court does not question Mr. Lynn’s qualifications or his experience in the construction industry. His proffered testimony, however, does not pass muster under *Daubert*. For the reasons noted, GSC and Allied World’s motion to exclude Randy Lynn’s expert testimony (Docs. 82; 129) is **GRANTED**.

SO ORDERED, this 20th day of June, 2019.

S/ Marc T. Treadwell
MARC T. TREADWELL, JUDGE
UNITED STATES DISTRICT COURT