

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

DOLORES CLAY, as
Administratrix of the Estate of
Kathleen P. Clay; JOHN D.
STROM, as Administrator of
the Estate of Christopher J.
Strom,
Plaintiffs-Appellees,

v.

FORD MOTOR COMPANY, a
Delaware Corporation,
Defendant-Appellant,

WILLIAM R. SLONSKY,
Third Party
Defendant-Appellee.

No. 98-4230

Appeal from the United States District Court
for the Northern District of Ohio at Akron.
Nos. 96-02127; 96-02128—David D. Dowd, Jr.,
District Judge.

Argued: September 17, 1999

Decided and Filed: June 28, 2000

Before: RYAN, MOORE, and GIBSON,* Circuit Judges.

COUNSEL

ARGUED: Craig A. Morgan, BROWN, McCARROLL & OAKS HARTLINE, L.L.P., Austin, Texas, for Appellant. Daniel J. Buckley, VORYS, SATER, SEYMOUR & PEASE, Cincinnati, Ohio, for Appellees. **ON BRIEF:** Craig A. Morgan, BROWN, McCARROLL & OAKS HARTLINE, L.L.P., Austin, Texas, Elizabeth B. Wright, Michael E. Smith, THOMPSON, HINE & FLORY, Cleveland, Ohio, for Appellant. Daniel J. Buckley, Andrew M. Kaplan, VORYS, SATER, SEYMOUR & PEASE, Cincinnati, Ohio, Edgar P. Heiskell III, Charleston, West Virginia, Martin J. McGetrick, CHANDLER, FRANKLIN & O'BRYAN, Charlottesville, Virginia, for Appellees.

GIBSON, J., delivered the opinion of the court, in which MOORE, J., joined. RYAN, J. (pp. 19-25), delivered a separate dissenting opinion.

OPINION

JOHN R. GIBSON, Circuit Judge. Ford Motor Company appeals from a judgment on a jury verdict that the Ford Bronco II has a design defect that proximately caused the deaths of Kathleen Clay and Christopher Strom and injury to William Slonsky. Ford argues that the district court erred by denying its motions for judgment as a matter of law and a new trial. Ford also argues that the admission of the testimony of

* The Honorable John R. Gibson, Circuit Judge of the United States Court of Appeals for the Eighth Circuit, sitting by designation.

Dr. Melvin Richardson, the appellees'¹ expert witness, was error, as was the grant of prejudgment interest to the Clay and Strom estates. We affirm.

Slonsky was driving a 1988 two-wheel drive Bronco II north on Interstate 77 in Ohio on a Sunday night. In the front passenger seat was Sean Lance, the vehicle's owner,² and in the back seat were Clay and Strom. The four friends were headed to a club in Cleveland. Slonsky was apparently the designated driver; Lance had taken LSD and asked him to drive. Slonsky had never driven the Bronco II before that night, although he did drive it to a gas station to get cigarettes prior to leaving for the club.

Slonsky was driving 53 to 65 miles per hour in the middle lane of three lanes when he noticed a fast-moving car behind him. To avoid the faster car, he moved into the right lane. Once there, he observed that the car in front of him was slowing down, so he returned to the center lane. At that point, he felt the vehicle "jerk" or "overcorrect" to the left, and he responded by turning the steering wheel back to the right. At some point while trying to regain control of the vehicle, he may have turned the steering wheel as much as a full revolution.

The vehicle turned sideways, its passenger-side wheel rims leaving gouge marks in the pavement for approximately fifteen feet. It rolled two and three-quarters or three and three-quarters times, coming to rest on the driver's side about 235 feet from the end of the gouges. Clay and Strom, who

¹The estates of Clay and Strom brought this action. Slonsky became a party by filing a counterclaim in response to Ford's impleader. Slonsky joined with the estates in presenting evidence at trial, and Ford appeals from the entry of judgment on the jury verdict in favor of each of the three parties. We will refer to the two estates and Slonsky collectively as "appellees."

²The Bronco II was actually purchased by Lance's mother, Lenora Buckland, for Lance to use.

were not wearing seatbelts, were ejected during the rollover; Clay died at the scene and Strom died at the hospital soon after. Slonsky and Lance, who had been wearing seatbelts, were able to climb out the passenger-side window. At the hospital, Slonsky tested negative for drugs and alcohol.

Dolores Clay and John Strom sued Ford on behalf of their children's estates in this diversity product liability action. Ford asserted third-party claims for indemnity and contribution against Slonsky, who then brought a counterclaim against Ford. After an extensive trial on liability, the jury found that the Bronco II has a design defect and that the defect proximately caused the deaths of Clay and Strom and the injuries to Slonsky. The jury rejected Ford's affirmative defenses of superseding cause and, as to Slonsky, assumption of the risk. After the damages phase of the trial, the jury awarded compensatory damages totaling \$17.5 million, but found that the appellees were not entitled to punitive damages. Dolores Clay, John Strom, and Slonsky consented to remittitur totaling \$7 million after the district court ruled on the post-trial motions and awarded prejudgment interest to the Clay and Strom estates.

Ford asserts that the appellees failed to present substantial evidence that the Bronco II has a design defect that caused this particular accident and that the verdict was against the weight of the evidence. Ford also argues that the district court erred by admitting Richardson's testimony and by awarding prejudgment interest.

I.

We first consider Ford's argument that the district court should have excluded Richardson's testimony. We review a district court's decision to admit or exclude expert testimony for abuse of discretion, *see General Elec. Co. v. Joiner*, 522 U.S. 136, 138-139 (1997), finding it only if we are firmly convinced that the district court erred, *see Greenwell v. Boatwright*, 184 F.3d 492, 495 (6th Cir. 1999). Deference to the district court's decisions "is the hallmark of abuse of discretion review." *Joiner*, 522 U.S. at 143. This is a close

any testing on a Bronco II, the vehicle model involved in this case; and has never designed a vehicle or vehicle components. The only machine Dr. Richardson has designed himself is an okra picker. To be sure, such lack of specific experience will not always disqualify an expert, and Ford does not focus its challenge to Dr. Richardson's opinion on his general professional qualifications. But Dr. Richardson's questionable qualifications to render an opinion concerning the adequacy of Ford's design of the vehicle *in this case* should at least have signaled to the trial court that the methodology this witness employed to get to his conclusion would require close gatekeeping scrutiny.

The majority further excuses the plaintiffs' manifest failure to introduce proof of the engineering soundness of Dr. Richardson's methodology, and perforce, the reliability of his ultimate opinion in accordance with *Daubert* and *Kumho*, by noting that Ford had an opportunity to cross-examine Dr. Richardson. It is not clear to me how this point is relevant, but in any event, I do not understand the majority's observation to suggest that such cross-examination would properly substitute for a trial court's gatekeeping function. This is not a duty a court may delegate to the jury under any circumstances. It was the trial court's gatekeeping duty to require proof that Dr. Richardson's methodologies were sound as a condition of admitting Dr. Richardson's opinions; the court did not do so and, therefore, the expert's opinion was improperly admitted.

In short, because I believe that Dr. Richardson's testimony should have been excluded, and that the error in admitting it was not harmless, I would reverse the district court's judgment.

design of a vehicle. However, Dr. Richardson conducted no “falsifiability” testing at all on a vehicle of the model involved in this case, and although he conducted very limited testing on a Bronco 4X4, a model not involved in this case, he did not base his design defect opinion on such tests; he never subjected his theories or techniques to peer review or publication; he produced no evidence of an error rate or standards controlling his “technique”; and he did not attempt to show that his “technique” or methodology was “generally accepted” in the scientific community. And the plaintiffs offered no proxies for these indicia of reliability.

The majority is very well aware, of course, of these deficiencies in the plaintiffs’ evidence, but seeks to dismiss them as unimportant. With regard to the first *Daubert* factor—“testing” or “falsifiability”—the majority acknowledges that Dr. Richardson never tested his hypothesis but concludes that the district court “could have” decided that this failure “went to the weight of [Dr. Richardson’s] testimony regarding defects in the Bronco II, not to its admissibility.” Whether the court did so or not, we do not know, because the court made no finding on the matter in the record. I agree that, as a general matter, a hypothesis may satisfy *Daubert* even if it is untested by the expert proposing it. However, in such cases the proponent of the testimony must demonstrate other appropriate indicia of reliability. This requirement is all the more critical in a case in which an engineer who conducted no testing is testifying about a design defect, particularly given that actual testing is the principal method employed by the engineering community to prove or disprove an engineering hypothesis. But the plaintiffs submitted no evidence whatsoever that Dr. Richardson employed *any* acceptable scientific/engineering methodology, whether mentioned in *Daubert* or otherwise, to support his conclusion that the Bronco II was defectively designed.

I note in passing that even Dr. Richardson’s general qualifications as an expert in vehicle design defect are questionable, given that he has never published a single article on vehicle handling or stability; has never conducted

case, but after careful review of the record, we are not firmly convinced that the court abused its discretion by allowing Richardson to testify.

Prior to trial, Ford submitted a motion in limine to exclude or limit Richardson's testimony, alleging that his opinions did not meet the requirements for expert testimony. Ford requested a hearing on its motion. Finding that Ford's motion was predicated on a ruling made almost three months earlier by a district court in West Virginia and that Ford had shown no good cause for waiting to file the motion until one week before the start of trial, the court denied its request for a hearing. Having been alerted to Ford's objections, the court indicated that it might conduct its own voir dire of Richardson before he testified.

District court judges must determine whether an expert's testimony is both relevant and reliable when ruling on its admission. *See United States v. Jones*, 107 F.3d 1147, 1156 (6th Cir. 1997). In *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), the Supreme Court confirmed what we held in *Jones*: the general gatekeeping obligation set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), applies when considering *all* expert testimony, including testimony based on technical and other specialized knowledge. *See Kumho Tire*, 526 U.S. at 141. It further held that the specific *Daubert* factors—testing, peer review and publication, potential rate of error, and general acceptance in the relevant community—may be considered by the district court even when the proffered expert testimony is not scientific.³ *See id.* Whether these specific factors are “reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine.” *Id.* at 153.

³This overruled our previous holding that the specific *Daubert* factors did not apply to non-scientific expert testimony. *See Jones*, 107 F.3d at 1158.

Although the district court did not explicitly recite that Richardson's testimony was relevant and reliable, its rulings indicate that it made that determination. Ford's motion in limine squarely raised the issue of reliability. Ford made a variety of objections throughout Richardson's testimony, including a continuing objection to his ability to offer opinions with respect to accident reconstruction, and at the conclusion of the appellees' case, Ford moved to strike Richardson's testimony in its entirety. We conclude, based on the district court's rulings on the motions and objections, that the court determined Richardson's testimony was relevant and reliable.

The district court is not obligated to hold a *Daubert* hearing, and in the absence of a hearing, "we must review the record to determine whether the district court erred in its assessment of the relevance and reliability of the expert testimony." *Greenwell*, 184 F.3d at 498. Having undertaken that review, we agree that Richardson's testimony was relevant to the issues in this case. He testified regarding the alleged defects in the Bronco II, and he reconstructed the accident. Ford's sole challenge to Richardson's testimony is that it was not reliable. Our inquiry focuses on the methodology and principles used by Richardson, not on his conclusions. *See Daubert*, 509 U.S. at 595.

The court qualified Richardson as an expert in the fields of mechanical engineering, machine design, vehicle dynamics, and accident reconstruction.⁴ Richardson has an

⁴ After the appellees moved to qualify Richardson as an expert in these fields, the court called counsel to the bench and recognized that it had overruled Ford's earlier motion to exclude the testimony. When offered the opportunity to conduct voir dire at this point, Ford's attorney stated that he would prefer to question Richardson when a specific topic was reached, otherwise it would seem disjointed. The court again offered Ford the opportunity to question Richardson generally about those areas of expertise, but noted that questions on specific opinions would be best reserved for cross-examination. Ford's attorney stated that he did not disagree and that Ford would also make objections as to foundation at appropriate times.

court should require compliance with at least some of the *Daubert* factors in determining whether an engineer's opinion on a design defect is reliable. Engineering is, after all, nothing more than applied science that "rests upon scientific foundations." *Id.* at 150. At a bare minimum, *Daubert*'s first factor—"testing" or "falsifiability"—will generally require an engineer to test his hypothesis of design defect. As one of Ford's experts explained, an engineer's evaluation of a vehicle's design involves not only following generally accepted design procedures, but also performing a variety of actual tests on the design during the development process. This is precisely what Ford did in developing the Bronco II.

Dr. Richardson, however, based his opinion that the Bronco II was defectively designed solely on his review of Ford's internal memoranda, industry comparisons of vehicle rollover rates, and Ford's vehicle testing. While there is a certain logical appeal to the notion that Dr. Richardson's opinion must be reliable if it rests upon data produced by the defendant, the notion does not withstand close consideration. What *Daubert* and *Kumho* require of the proponent of expert opinion is evidence that the methodology underlying the expert's conclusion is "good science" or "good engineering." That means that the plaintiffs were obligated to introduce at least some evidence that Dr. Richardson's method—that is, examining depositions, police reports, photographs of the vehicle, Ford's internal memoranda, industry comparisons of vehicle rollover risks, and Ford's vehicle testing data, but never personally examining the accident vehicle or testing any other vehicle of the same model—is a sound engineering methodology for evaluating vehicle design.

Daubert and *Kumho* teach that whether such methodology is "good engineering" is determined by testing such data for "falsifiability"; considering whether peer review and engineering publications approve of such an approach; considering the rate of error such data might produce; and considering whether the relevant scientific/engineering communities generally accept consideration of such data as a sound methodology for reaching a conclusion about the

following the accident. He admitted, however, that he did not personally inspect the vehicle, but rather sent his son to take the photographs. While this evidence indirectly suggests that Dr. Richardson thought his methodology was reliable, it hardly suffices as evidence of reliability under *Daubert*. See *id.* at 157. Nothing in this testimony touches on any of the *Daubert* factors, or any other measures of reliability, for that matter. The record is absolutely devoid of any indication that the process or methodology Dr. Richardson employed in reaching his accident reconstruction opinion was “good science” or “good engineering.”

The majority minimizes this deficiency by noting that Ford’s accident reconstruction expert, Dr. Carr, performed some of the same procedures in reaching *his* conclusion about how the accident occurred, which, of course, was very different than Dr. Richardson’s conclusion. It is not clear to me how this observation is useful. Similarity in the methods employed by two groups of experts tells us nothing about the legal sufficiency (*i.e.*, the reliability) of either. Moreover, plaintiffs’ counsel did not object to the admission of Dr. Carr’s testimony. The majority also overlooks potentially key distinctions between the experts’ methods. Unlike Dr. Richardson, Dr. Carr personally inspected both the site of the accident and the vehicle following the accident. He also testified that his opinion on the accident reconstruction was based, in part, on his extensive personal experience testing the design and handling of the vehicle model involved in this case. Dr. Richardson’s experience testing *any* vehicle was much more limited, and he did not rely on this experience in reaching his accident reconstruction opinion. More importantly, he conducted no tests whatsoever on the model of vehicle involved in this case.

The record is also devoid of any evidence showing that Dr. Richardson employed recognized, reliable scientific or engineering methodology in reaching his conclusion that the Bronco II has handling and stability design defects. What’s more: the district court required no such evidence in discharging its gatekeeping function. In general, a district

undergraduate degree in mechanical engineering, masters degrees in both mechanical engineering (with an emphasis in machine design) and applied mathematics, and a doctoral degree in engineering mechanics. He taught at Clemson University for twenty years in the fields of mechanical engineering, machine design, dynamics, engineering mechanics, and stress analysis.

Richardson testified that a quarter or a third of the full-time consulting work he has done since 1985 has been in accident reconstruction, with the majority being reconstruction of automobile accidents. He spends the remainder of his consulting time generally in the field of machine design, looking at the process by which a machine is designed and determining whether the machine is suitable and safe for certain purposes. On a couple of occasions, Ford has retained Richardson to consult and provide opinions.

Richardson testified that dynamics, or the analysis of the forces that produce motion in objects, can be used to analyze vehicles and parts of machines and that accident reconstruction is simply an application of dynamics. To reconstruct accidents, Richardson looks at the physical and factual information available, applies standard engineering principles to this information, and determines the most probable sequence of events.

Richardson has never worked in the automobile manufacturing industry, nor has he tested a two-wheel drive Bronco II. He has never published an article on vehicle handling and stability, although he has made presentations on those topics.

Richardson's testimony focused on three alleged defects in the Bronco II. First, he criticized the vehicle's "stability index" as too low. The stability index is calculated by dividing the track width, measured from the center of one tire to the center of the tire across from it, by the height of the center of gravity of a vehicle. Second, he testified that a rear stabilizer bar on the Bronco II would cause oversteer, which is characterized by spinning out, or a sliding of the rear of the

vehicle, on a turn. Finally, he theorized that the front suspension used on the Bronco II, the Twin I-beam, causes "jacking." According to Richardson, in a hard turn, this suspension will cause the front end of the vehicle to rise and the track width to decrease, making the vehicle taller and narrower and elevating the center of gravity.

Richardson also reconstructed the accident, describing how photographs of the vehicle and the road related to his analysis and referring to a scale drawing of the highway where the accident occurred. He said that Slonsky's statement that the vehicle "overcompensated" during the double lane change was consistent with the Bronco II's tendency to oversteer. Richardson stated that the rollover resulted from the inadequate stability of the Bronco II. He expressed the opinion that these handling and stability defects caused the Bronco II to roll over in this case, and that there were no other causes of the accident.

Ford characterizes Richardson's approach to accident reconstruction as "cavalier," stating that his investigation consisted only of reviewing the police accident report and "some" depositions, statements, and photographs and of visiting the accident site the day before he testified. Ford's expert on accident reconstruction also reviewed the police report, depositions, statements, and photographs. In addition, he inspected the actual vehicle and visited the accident site several months before the trial.

Ford does not indicate how Richardson's failure to inspect the Bronco II or his late visit to the accident site undermine his methodology of accident reconstruction or render his testimony about this particular accident inadmissible. The district court allowed a continuing objection by Ford to Richardson's testimony concerning accident reconstruction and ultimately rejected Ford's motion to strike.

Ford also focuses on Richardson's failure to test his theories that the Bronco II oversteers and "jacks," but does not challenge the principle that dynamics can be used to analyze vehicle designs and predict their motion. The district court,

the technique's operation; and (4) whether the theory or technique has been generally accepted in the particular scientific field. *Daubert*, 509 U.S. at 593-94. A trial court may consider one or more of these factors, but the Supreme Court has cautioned that this "list of specific factors neither necessarily nor exclusively applies to all experts or in every case" and that a trial court has "broad latitude" to determine whether these factors are "reasonable measures of reliability in a particular case." *Kumho*, 526 U.S. at 141, 153. Despite the broad flexibility afforded to trial courts, I do not read *Daubert* or *Kumho* to mean that the complete disregard of one or more of the *Daubert* factors in a given case can never be definitive.

In its application of *Daubert*, the majority first devotes significant attention to Dr. Richardson's general education and experience. There is no question that a witness's education, personal knowledge, and experience are important components of the witness's qualification to render an expert opinion, *viz*, whether he or she is an "expert." But in cases involving scientific opinion (*Daubert* cases) or applied scientific opinion as in matters of engineering (*Kumho* cases), it is the *methodology* employed by the expert, not the expert's general educational qualifications, that is in issue. Dr. Richardson's impressive academic and experiential history tells us nothing about how he did what he did to reach his conclusions in this case. And I do not read the majority's opinion to suggest otherwise.

To be sure, the majority opinion summarizes Dr. Richardson's testimony describing the methods he employed in reaching his conclusions. For example, before he opined on accident reconstruction, Dr. Richardson reviewed the process he employed to reach his conclusions. He personally reviewed several discovery depositions in the litigation, reviewed police reports, and prepared a scale drawing reflecting points identified in the police reports. He also visited the scene of the accident, but this visit occurred the day before the trial, well after he had formed his opinion. Finally, Dr. Richardson reviewed photographs of the vehicle

dire at that time because the questioning would appear disjointed from the jury's perspective. The court suggested that, given the breadth of Dr. Richardson's areas of expertise, defense counsel reserve his questioning of Dr. Richardson for cross-examination. The court then ruled that Dr. Richardson was qualified as an expert in several fields, with the understanding that the defense would make continuing foundational objections as the testimony proceeded. At the conclusion of the plaintiffs' case, Ford moved to strike Dr. Richardson's testimony pursuant to *Daubert*. The court overruled the motion without providing any reasoning on the record.

Although we have stated that a trial court need not hold an evidentiary hearing in every case to comply with *Daubert*, we have made it clear that the court must make an "initial assessment of the relevance and reliability of the expert testimony." *Greenwell v. Boatwright*, 184 F.3d 492, 498 (6th Cir. 1999) (emphasis added). Here, the district court did not make such an initial assessment, and indeed made no express assessment at any time as to the reliability of Dr. Richardson's testimony. The absence of such determination signals the trial court's failure to perform its gatekeeping function as mandated by *Daubert* and *Kumho*. In my view, this failure alone constitutes an abuse of discretion. The majority, however, is willing to overlook this failure, in essence substituting its own determination of reliability for that of the district court. Even if I agreed with the majority's approach, I cannot agree with the majority's assessment of reliability.

III.

Daubert sets forth a non-exclusive list of factors for trial courts to consider in determining the reliability of expert testimony: (1) whether a theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the known or potential rate of error in using a particular scientific technique and the existence and maintenance of standards controlling

in its discretion, could have decided that Richardson's failure to test his theories went to the weight of his testimony regarding defects in the Bronco II, not to its admissibility. As with Richardson's accident reconstruction testimony, Ford was able to challenge the testimony regarding the alleged defects in the Bronco II on cross-examination. "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert*, 509 U.S. at 596.

In accord with the teaching of *Greenwell*, we reviewed the record in detail to determine whether the district court erred in its assessment of reliability. We observe that Ford had a full opportunity to cross-examine Richardson, and that the court was careful to preserve and rule on Ford's objections. Because we are not firmly convinced that the district court erred, we find no abuse of discretion.

II.

In a diversity action, we apply the standard of review of the state whose substantive law governs when reviewing a denial of a motion for judgment as a matter of law that is based on the sufficiency of the evidence. *See Morales v. American Honda Motor Co.*, 151 F.3d 500, 506 (6th Cir. 1998). The district court applied the following standard:

The evidence adduced at trial and the facts established by admissions in the pleadings and in the record must be construed most strongly in favor of the party against whom the motion is made, and, where there is substantial evidence to support his side of the case, upon which reasonable minds may reach different conclusions, the motion must be denied. Neither the weight of the evidence nor the credibility of the witnesses is for the court's determination in ruling upon [a motion for judgment as a matter of law].

Posin v. A.B.C. Motor Court Hotel, Inc., 344 N.E.2d 334, 338 (Ohio 1976). The Ohio Supreme Court has since stated that

"the reasonable minds test . . . calls upon the court only to determine whether there exists any evidence of substantial probative value in support of the claims of the party against whom the motion is directed." *Texler v. D. O. Summers Cleaners & Shirt Laundry Co.*, 693 N.E.2d 271, 273 (Ohio 1998) (citations and internal quotations omitted).

Under Ohio law, a manufacturer is liable for a design defect if the plaintiff proves by a preponderance of the evidence both that the product was defective in design and that the defect was a proximate cause of the harm for which the plaintiff seeks damages. *See* Ohio Rev. Code Ann. § 2307.73(A) (Anderson 1998). A product is defective in design if (1) the foreseeable risks of the design exceed the benefits, or (2) the product is more dangerous than an ordinary consumer would expect when used in a reasonably foreseeable way.⁵ *See* Ohio Rev. Code Ann. § 2307.75(A) (Anderson 1995).

A.

Under the risk-benefit test, the foreseeable risks of a design are determined by considering the following non-comprehensive list of factors: the nature and magnitude of the risks in light of the intended and reasonably foreseeable uses of the product; the likely awareness of the product's users of those risks; the likelihood that the design would cause harm in light of its intended and reasonably foreseeable uses; and the extent to which the product conformed to any applicable product standards that were in effect when it left its manufacturer. *See* Ohio Rev. Code Ann. § 2307.75(B).

Ford argues that evidence regarding the Bronco II's production and development is irrelevant because the product, not the manufacturer's conduct, is the focus of a design defect claim. The Ohio statute, however, makes the foreseeable risks of the design of that product relevant. The handling and

⁵The current Ohio statute, which applies to products designed on or after January 27, 1997, omits the consumer-expectations test. *See* Ohio Rev. Code Ann. § 2307.75(A) (Anderson 1998).

DISSENT

RYAN, Circuit Judge, dissenting. Because I believe that the district court abused its discretion in admitting Dr. Richardson's testimony, I respectfully dissent.

The majority describes the admissibility of Dr. Richardson's testimony as a "close case." I disagree. In my view, this case presents a clear example of a court improperly abdicating its gatekeeping function under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

I.

Expert testimony is admissible under Fed. R. Evid. 702 only if the trial court finds that the testimony is both relevant and reliable. *Daubert*, 509 U.S. at 589, 594-95, 597. While *Daubert* focuses on "scientific" experts, the Supreme Court recently made clear that the *Daubert* principles apply to the opinions of "non-scientific" experts such as engineers. *Kumho*, 526 U.S. at 141. Here, there is no question that Dr. Richardson's testimony was relevant to the material issues presented in this product liability lawsuit. The critical question, then, is whether the testimony was reliable.

II.

The procedural history preceding the admission of Dr. Richardson's testimony provides the first unmistakable sign of trouble. As the majority acknowledges, the district court refused to hold a hearing on Ford's pretrial motion *in limine*, "reserv[ing] to itself the *possibility* of engaging in a brief voir dire of Dr. Richardson before his testimony is offered." (Emphasis added.) At trial, after Dr. Richardson summarized his training and experience, plaintiffs' counsel moved to qualify him as an expert in several engineering-related fields. Defense counsel declined the opportunity to conduct *voir*

of his cases because it did not want to "incentivize" him. Ford has settled eleven of nineteen cases that Heiskell brought against it, some of them after this alleged statement was made.

The district court found that the Clay and Strom estates established that they attempted to settle the case in good faith and that Ford failed to act in good faith by refusing to make any settlement offers prior to trial. Our review of the evidence convinces us that the court did not abuse its discretion by making this finding, and once this finding was made, Ohio law mandated an award of prejudgment interest. *See* Ohio Rev. Code Ann. § 1343.03(C)(1).

* * *

For the foregoing reasons, we affirm the judgment of the district court in its entirety.

stability problems that the Bronco II had during production and development are relevant to the foreseeable risk factors, including the nature and magnitude of the risks in light of the vehicle's intended uses and the likelihood that its design would cause harm.

James McClure, a Ford engineer, testified that during production of the Bronco II, Ford ceased real life J-turn testing in favor of computer simulations. A J-turn maneuver tests a vehicle at its limit by driving it straight at a given speed and then turning the steering wheel to a certain position and holding it in that position. Ford used 360 and 540 degree steering wheel inputs when conducting J-turn tests. During one such maneuver, a Bronco II went up on two wheels and flipped after its outrigger, a safety device used when testing vehicles, failed. Because of a concern for the safety of its test drivers, Ford switched to computer simulations.

McClure further testified that the Bronco IIs sold to the public had a revised stabilizer bar design that improved their handling and stability and that this design was not present in the vehicles tested earlier. Ford never did actual J-turn tests on the Bronco IIs that had the revised stabilizer bar design. Construing this evidence most strongly in favor of the appellees, reasonable minds could conclude that the Bronco II's design still posed a foreseeable risk of flipping during a J-turn.

Ford also argues that evidence presented regarding the Bronco II's stability index does not prove a design defect. At trial, Ford presented statistical evidence showing that vehicles with similar stability indexes have different rollover rates, and vehicles with different stability indexes have similar rollover rates. Fred Parrill, a Ford engineer, testified that there is no direct correlation between the static stability index and a vehicle's dynamic performance. McClure testified that stability index has little effect on overall vehicle performance.

Ford's challenge to the validity of stability index as a predictor of vehicle behavior is countered by a 1981 Ford program report in which its engineers recommend ways to

increase the stability index of the Bronco II. In addition, Parrill testified that a higher stability index meant that a vehicle would have less propensity to roll. This is substantial evidence upon which reasonable minds could come to different conclusions, including that a relatively low stability index indicated a foreseeable risk of rollover.

Under the risk-benefit test, the benefits of a design are determined by considering the following non-comprehensive list of factors: the product's utility, including performance or safety advantages; the technical and economic feasibility of using an alternative design; and the nature and magnitude of any foreseeable risks associated with an alternative design. *See* Ohio Rev. Code Ann. § 2307.75(C).

To show the benefits of the design of the Bronco II, Ford put on evidence of its utility. According to the Ford engineer who supervised vehicle dynamics at the time the two-wheel drive Bronco II was approved for production, a sport utility vehicle has several distinctive characteristics: first, the occupants sit relatively high for good visibility; second, the vehicle is maneuverable in tight spaces; third, it has cargo carrying capability; and finally, it has sufficient ground clearance to use on all road conditions, including off road.

The appellees presented evidence regarding the feasibility of alternative designs by pointing out options that Ford had considered and rejected during the development of the Bronco II. Ford considered three front suspensions for the vehicle: the Twin I-beam, the MacPherson strut, and the short-long arm. Ford chose the Twin I-beam, which caused the engine to be located higher in the vehicle than if either of the other suspensions had been chosen. Because the engine is one of the heaviest parts of the vehicle, the use of the Twin I-beam suspension worsened the stability index of the Bronco II.

The 1981 Ford program report regarding the stability index of the Bronco II listed five alternatives to increase the index. Three of the proposals that Ford did not choose provided for a wider track and a higher stability index than the proposal chosen. The increased track width was a problem because it

settlement.⁶ On August 24, 1996, Heiskell sent a package of materials to Ford regarding the claims and requested \$1.2 million on behalf of each estate. He sent additional materials to complete the package four days later. On August 12, 1997, Heiskell faxed a message regarding settlement of his entire inventory of claims against Ford and requested \$750,000 for each estate. On January 9, 1998, Heiskell sent a letter to Ford in another attempt at a "global settlement" and requested \$550,000 for each estate. Finally, after the second day of trial, Heiskell requested \$1.5 million for each estate.

The estates did not challenge Ford's cooperation during discovery or claim that Ford unnecessarily delayed the proceedings. They argued that Ford neither rationally evaluated its potential liability nor responded in good faith to their settlement offers.

On September 23, 1996, Ford sent what appeared to be a form letter to Heiskell, requesting some of the materials that it had received with the first settlement demand, along with additional materials that Heiskell had not initially provided. On July 23, 1997, Ed Stewart, a Ford attorney, sent a letter to Heiskell that discussed Ford's assessment of the merits of each of his cases and its refusal to pay exorbitant sums to settle cases with no merit. The letter did not specifically refer to the Clay and Strom matters. Stewart testified that he and Heiskell spoke on the telephone as often as weekly regarding the Bronco II cases. After Stewart requested a proposal to settle all of Heiskell's pending cases, Heiskell responded with the August 1997 fax. Ford's first and only settlement offer in this case came after the jury had determined liability and prior to the damages portion of the trial when it offered \$1.5 million to settle the three claims.

Heiskell testified that in late September 1996, Ford's general counsel told him that Ford was not going to settle any

⁶ All three appellees sought prejudgment interest, and the district court denied Slonsky's motion. Slonsky did not file a cross-appeal on this issue.

favor and that the verdict was not against the clear weight of the evidence. Our discussion of whether Ford was entitled to judgment as a matter of law illustrates that the jury's verdict was reasonable. Because there is no indication that the court abused its discretion or erred in applying the standard for the grant of a new trial, we affirm its denial of Ford's new trial motion.

IV.

We review a district court's grant of prejudgment interest for abuse of discretion. *See Stallworth v. City of Cleveland*, 893 F.2d 830, 836 (6th Cir. 1990). Under Ohio law, an award of prejudgment interest must be made if the court finds "that the party required to pay the money failed to make a good faith effort to settle the case and that the party to whom the money is to be paid did not fail to make a good faith effort to settle the case." Ohio Rev. Code Ann. § 1343.03(C)(1) (Anderson 1993). The party requesting prejudgment interest has the burden of proving that it made a good faith effort to settle and that the other party failed to make a good faith effort to settle. *See Moskovitz v. Mt. Sinai Med. Ctr.*, 635 N.E.2d 331, 348 (Ohio 1994).

If a party has (1) fully cooperated during discovery, (2) rationally evaluated its risks and potential liability, (3) not attempted to unduly delay the proceedings, and (4) in good faith, made a settlement offer or responded to the other party's offer, that party has not failed to make a good faith effort to settle the case. *See Kalain v. Smith*, 495 N.E.2d 572, 574 (Ohio 1986). "If a party has a good faith, objectively reasonable belief that [it] has no liability, [it] need not make a monetary settlement offer." *Id.* Placing the burden of proof on the party seeking prejudgment interest creates difficulties for that party "since much of the information needed to make a case for prejudgment interest is in the possession of the party resisting an award." *Moskovitz*, 635 N.E.2d at 348.

To prove that they made a good faith offer to settle, the Clay and Strom estates presented the testimony of their attorney, Edgar Heiskell, who detailed their offers of

would have required a sheet metal design change with a minimum one-year delay in production, and because Ford planned to sell the vehicle in Japan. If reasonable minds could conclude that stability index is relevant to rollover propensity, they could also conclude that these alternative designs would pose less risk than the design Ford adopted.

Before Ford ceased J-turn testing, its engineers concluded that an improvement in the Bronco II's J-turn handling could be achieved by reducing its wheel size by one inch or increasing its track width by three to four inches. Although these suggestions were technically feasible, they were not implemented. Reasonable minds could reach different conclusions on whether the foreseeable risks of the Bronco II's design outweighed its benefits.

B.

Even if the jury did not conclude that the Bronco II had a design defect under the risk-benefit analysis, it could have found a design defect if the vehicle was more dangerous than an ordinary consumer would expect when used in a reasonably foreseeable manner. The "B Roll" videotape, introduced by the appellees, shows the Bronco II lift both right wheels off the ground during an avoidance maneuver done at 37 miles per hour. Ford argues that the tape shows the driver rapidly turning the steering wheel "in a radical maneuver that few people would have the courage to attempt." This is evidence upon which reasonable minds could come to different conclusions, including that the vehicle was being used in a reasonably foreseeable way and that the resulting two-wheel lift was more dangerous than an ordinary consumer would expect.

When determining whether a product is more dangerous than an ordinary consumer would expect, "evidence of unsafe, unexpected product performance is sufficient to infer the existence of a product defect." *State Farm Fire & Cas. Co. v. Chrysler Corp.*, 523 N.E.2d 489, 495 (Ohio 1988). On the night of the accident, Slonsky made what seemed to be a typical lane change maneuver. He testified that he felt the

Bronco II overcorrect, he could not regain control of the vehicle, and it started to roll. There is no evidence that Slonsky was speeding or driving erratically. The driver of a vehicle that was behind the Bronco II on the highway confirmed the lane changes Slonsky made and testified that Slonsky was driving at a normal rate of speed prior to the accident. This rollover—an unsafe, unexpected event—is evidence that supports a finding that the Bronco II has a design defect under the consumer-expectations test. A lane change on a highway while traveling at a normal rate of speed is a reasonably foreseeable use of the product, and reasonable minds could find the resulting accident more dangerous than an ordinary consumer would expect.

C.

Ford argues that even if the Bronco II has a design defect, the appellees did not prove that it was the cause of this accident. "[L]iability for a design defect is not proven absent proof of causation relating some aspect of the challenged design to the injury." *State Farm*, 523 N.E.2d at 496. In *State Farm*, a couple's automobile caught fire while it was parked in their garage and they sued its manufacturer, alleging that a design defect caused the fire. *See id.* at 490-491. The court upheld a directed verdict for the manufacturer on this claim because there was no proof of causation:

While proceeding to exclude possible causes of the fire other than design defects, plaintiffs presented no expert analysis or other evidence demonstrating that some aspect of the design of the Chrysler K-car would or could result in electrification or overheating of components and/or wiring sufficient to cause an auto fire when the ignition was turned off.

Id. at 495. In contrast, the appellees presented evidence that certain aspects of the Bronco II's design, including its narrow track width and high center of gravity, could result in wheel lift and rollover while the vehicle was in operation. In addition, Richardson testified that Slonsky's description of the Bronco II's behavior was consistent with the alleged oversteer

tendencies of the vehicle and that in his opinion, once the Bronco II was sideways, it rolled because of a stability defect. Reasonable minds considering this evidence could reach different conclusions on whether the alleged design defects caused the accident.

Construing the evidence most strongly in favor of the appellees, there was substantial competent evidence upon which reasonable minds could reach different conclusions, including that the Bronco II's design was defective under Ohio's statutory definition and that a defect caused the accident. Accordingly, we affirm the district court's denial of Ford's motion for judgment as a matter of law.

III.

We review a denial of a motion for a new trial for abuse of discretion, applying the federal standard rather than Ohio law. *See Anchor v. O'Toole*, 94 F.3d 1014, 1021 (6th Cir. 1996). In determining whether to grant a new trial when the claim is that the verdict is against the weight of the evidence, a district court must compare and weigh the opposing evidence and it must set aside the verdict if it determines that the verdict is against the clear weight of the evidence. *See J. C. Wyckoff & Assocs. v. Standard Fire Ins. Co.*, 936 F.2d 1474, 1487 (6th Cir. 1991). Typically, we will find abuse of discretion only if

we have a definite and firm conviction that the trial court committed a clear error of judgment. And, in reviewing a trial court's denial of a new trial motion on the ground that the verdict is against the clear weight of the evidence, we accept the jury's verdict if it was reasonably reached.

Anchor, 94 F.3d at 1021 (citations and internal quotations omitted).

We have carefully reviewed the record and the district court's opinion and order. The district court considered the evidence that the parties presented at trial and concluded that it was possible to find that the scale tipped in the appellees'