

IN THE COURT OF APPEALS OF THE STATE OF NEW MEXICO

EDWIN GURULE, individually,
and as personal representative of the Estate of
SAMMY GURULE, deceased,

Plaintiff-Appellee/Cross-Appellant,

vs.

FORD MOTOR COMPANY,

Defendant-Appellant/Cross-Appellee.

COPY

No. 29,296 COURT OF APPEALS OF NEW MEXICO
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San H. Morales

Appeal from the First Judicial District Court
Rio Arriba County, New Mexico
Honorable Timothy Garcia, Judge

ANSWER BRIEF OF APPELLEE

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References to recorded transcript: The proceedings of June 18, 2008, August 11, 2008 and August 27, 2008 were digitally recorded using FTR. In citations to those proceedings “Tr. 8/11/08 - 11:26:15 a.m.” indicates a point occurring at the hour of the day indicated by the FTR software.

STATEMENT OF COMPLIANCE

The body of this brief, which contains more than 35 pages, complies with the length limitations of Rule 12-213(F)(3) NMRA (2007). It is proportionately spaced and contains 10,288 words. The brief was prepared and the word count determined using Microsoft Word 2000.

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SUMMARY OF PROCEEDINGS

A. History of the Ranger roof.

No one knows why Sammy Gurule's 1993 Ford Ranger pickup left the roadway and rolled over, caving in the roof and killing him. (Tr. 1243.) However, long before it manufactured the truck in which Sammy died, Ford Motor Company knew that in a rollover accident a weak roof means injury and death. A 1968 Ford engineering document acknowledged: "People are injured by roof collapse. The total number of nationwide deaths and injuries cannot be estimated but it is a significant number." (Tr. 1008-1009; R.P. 2500; Pl. Ex. 59, p. 2.) (Emphasis in original.) Noting data that showed belted occupants were more likely to be killed or injured in rollovers than unbelted occupants, the author of the memo concluded: "It seems unjust to penalize people wearing effective restraint systems by exposing them to more severe rollover injuries than they might expect with no restraints." (*Id.*)

In the 1960s Ford knew how to build a roof that could withstand a 50 mile-per-hour rollover and a two foot drop test without encroaching into the area of the occupant's head. (Pl. Ex. 69, 70; *see* R.P. 2505-2507.) When it later designed the Ranger, Ford acknowledged that "...50% of light truck fatalities resulted from rollovers," (Pl. Ex. 66, p. 1) and that "... serious head injury is unlikely in trucks, even among unbelted occupants, unless a

head injury is unlikely in trucks, even among unbelted occupants, unless a rail like component intruded (A-pillar, roof header, etc.). Increased roof structure provides an opportunity to reduce these injuries and fatalities.” (Pl. Ex. 66, p.1.)

Despite this knowledge Ford built the roof header and side rails of the 1993 Ranger out of thin gauge metal (Tr. 537, 538), using a weak open-section design instead of stronger closed sections. (Tr. 538, 541-542.) The metal of the header contained holes which further weakened the structure. (Tr. 538-539.) The A-pillars, which supported the Ranger roof at the sides of the windshield, were only reinforced for about 4 inches instead of along their entire length. (Tr. 539-540.) Under a load the A-pillar tended to buckle where the reinforcement ended, as it did in the truck in which Sammy Gurule died. (Id.)

Significantly, at the same time it was designing and building a weak roof on the 1993 Ranger, Ford was designing a much stronger roof for the 1994 Mustang. The Mustang roof employed closed-section rather than open-section design in the header and side rails, (Tr. 623), was built of heavier gauge metal (Tr. 614; Pl. Ex. 1819, p. 5), and incorporated “extra gussets and reinforcements” (Tr. 614; Pl. Ex. 1819, p. 5), tubular roof headers and rails, and fully reinforced A-pillars. (Tr. 614-615; Pl. Ex. 1819, p. 5.) Ford

advertised the 1994 Mustang as being able to “resist collapse in a rollover type accident.” (Pl. Ex. 1818 p. 3.)

B. The cause of Sammy Gurule’s fatal injuries.

Sammy died from a skull fracture caused by a blow to the left side of his head. (Deposition of Ian Paul 5.) This fatal injury was consistent with Sammy’s head being struck by the collapsing roof of the truck. (*Id.* 12.) The medical examiner found no indication that Sammy’s head hit the window or the ground outside the window. (*Id.* 23.) Sammy suffered no fatal injury other than the injury to his head. (*Id.* 15.)

The Plaintiff’s evidence showed that Sammy’s fatal head injuries were caused by the deformation of the roof of the Ranger pickup. (Tr. 266, 272, 280, 291, 296, 299, 333-334, 352.) Ford’s theory was that Sammy’s injuries did not result from roof crush, but that his head moved outside the truck and struck the ground. (Tr. 1382-1383, 1396-1397, 1409-1411, 1424-1426, 1443-1444-1449.)

Dr. Joseph Peles, the Plaintiff’s expert witness in bioengineering (Tr. 257-261), concurred with Dr. Ian Paul, the medical examiner who performed the autopsy on Sammy’s body, that Sammy’s head injuries were consistent with being struck by the roof, and not consistent with his head striking the ground outside the vehicle. (Tr. 333-335, 336-338, 342.) Dr. Peles testified

that the forces which caused the fatal skull fracture were those which caused the inward crushing and buckling of the roof in a V shape. (Tr. 339, 345-346.) The fatal “V buckling,” which Dr. Peles also referred to as “caving in” (Tr. 345-346), would not have occurred if overall intrusion of the roof structure had been limited to 2-3 inches. (Tr. 352-353, 480-481, 483- 484.) If V buckling had not occurred Sammy would have sustained only minor injuries. (Tr. 352-353.) The sufficiency of the evidence to sustain this conclusion is discussed in Point I, *infra*.

C. The defective roof and its negligent design.

The Plaintiff’s expert in structural engineering, Dr. Michael Huerta, conducted extensive structural testing and analysis leading him to conclude that the roof of the 1993 Ranger was unreasonably dangerous and that a feasible alternative design would have prevented the enhanced and fatal injuries Sammy suffered in his rollover accident.

The sufficiency of the evidence to sustain this conclusion is discussed in detail in the argument under Point II, *infra*. In brief summary, Dr. Huerta conducted testing on exemplar vehicles. (Tr. 522, 696.) He dissected an exemplar Ranger roof to understand its components. (Tr. 534.) He conducted a finite element analysis which enabled him to design modest reinforcements to add necessary strength to the Ranger roof structure. (Tr.

594-595.) Using that design he modified and tested a Ranger roof to verify his analysis. (Tr. 605-606.) He compared the construction of the Ranger roof to the safer, reinforced roof of the Ford Mustang being manufactured during the same period. (Tr. 613-618, 622-629.) He calculated the cost and weight to build a safer roof on the Ranger, more like the roof of the 1994 Mustang. (Tr. 630-634.)

Dr. Huerta concluded that the roof of the Ranger was unreasonably dangerous. (Tr. 666.) Dr. Huerta also concluded that it was feasible to manufacture the Ranger with sufficient roof reinforcement to prevent the injuries that killed Sammy Gurule for about \$100 per vehicle. (Tr. 630-634.) This was significantly less than the amount in inflation adjusted dollars that Ford, in a 1965 cost-benefit analysis, concluded was a justifiable for providing “totally effective rollover protection” in its vehicles. (Pl. Ex. 81, p. 5.)

D. Evidence regarding hedonic damages.

In conformance with NMUJI Civ. 13-1830 NMRA (2000) the jury was instructed that the elements of the Plaintiff’s damages for Sammy’s wrongful death included, in addition to his lost earning capacity, “the value of the deceased’s life apart from his earning capacity.” (Tr. 2103.) On this issue the Plaintiff presented extensive evidence about the admirable and

exemplary character of Sammy Gurule. (*Infra* Point III(B)(2).) In addition the Plaintiff presented the testimony of an economist, William Patterson, who cited a number of published value-of-life studies which assigned a wide range of values, or benchmarks, to human life in different decisional contexts. (Tr. 901.) Mr. Patterson stressed that the purpose of his testimony was not to suggest that Sammy's life had any particular value, but merely to provide an economic context within which the jury could weigh the other evidence in the case bearing on the value of Sammy's life. (Tr. 909, 958-959.) The Plaintiff's argument showing that the trial court was within its discretion to allow Mr. Patterson's testimony appears in Point III, *infra*.

ARGUMENT

I. THE EVIDENCE WAS SUFFICIENT TO PROVE THAT THE COLLAPSING ROOF OF SAMMY GURULE'S FORD RANGER CAUSED HIS FATAL INJURIES, AND THAT IF THE ROOF HAD NOT COLLAPSED, SAMMY WOULD HAVE WALKED AWAY FROM THE ACCIDENT.

A. Standard of review.

Ford challenges the sufficiency of the evidence to support the verdict. In a crashworthiness case the Plaintiff must prove "(1) that the defective design caused injuries over and above those which otherwise would have been sustained, and (2) the degree of enhancement. The degree of enhancement may be established by proof of what injuries, if any, would

have resulted had an alternative, safer design been used.” *Couch v. Astec Industries, Inc.*, 2002-NMCA-084, ¶ 35, 132 N.M. 631, 53 P.3d 398, *cert. denied*, 132 N.M. 551, 52 P.3d 411 (2002).

On appeal the reviewing court “examine[s] the record for relevant evidence such that ‘a reasonable mind might accept as adequate to support a conclusion.’” *Nava v. City of Santa Fe*, 2004-NMSC-039, ¶ 10, 136 N.M. 647, 103 P.3d 571. (Citations and internal quotation marks omitted.) The court “resolve[s] disputed facts in favor of the party prevailing below, indulging all reasonable inferences in favor of the verdict and disregarding contrary inferences, and [does] not independently weigh conflicting evidence.” *Id.*

In this case the evidence introduced by the Plaintiff and the inferences reasonably drawn from it support the conclusion that the proximate cause of Sammy Gurule’s death was the defective, negligently designed roof of his Ford Ranger pickup, which enhanced any injury he would have received from the deformation of a properly designed roof.

- B. The evidence was sufficient to prove that regardless of the position of his head in relation to the roof, Sammy Gurule would not have been fatally injured if the roof had not “V bucked” when it impacted the ground.**

On appeal Ford mischaracterizes Dr. Peles's testimony as stating that Sammy would have been fatally injured by any amount of roof crush, even if it had been limited to two to three inches. (Br. in Chief 12-22.) Dr. Peles testified, however, that Sammy's fatal injury did not occur simply because there was some degree of deformation of the roof into the driver compartment. The fatal injury occurred because the roof collapsed and buckled in a V shape. (P. Ex. 177, 184, 207.) It was this V buckling which introduced an additional, fatal component of force. (*Id.*)

The V buckling of the roof resulted from the combination of two components of force, one lateral and one vertical. (Tr. 284-285, 345-346, 388-390.) The roof was not strong enough to resist this combination of forces. (*Id.*) A strong roof would have only deformed in a shape conforming to the ground. (Tr. 284-285.) Such a deformation would not have transmitted sufficient force to cause Sammy's injury. (*Id.*) Dr. Peles's testimony on these points was unequivocal:

Q. * * * What is the -- what are we seeing here? What's the significance of this?

A. Here we are seeing what I've called earlier the V-shaped buckle. * * * What does not happen is that the roof does not just crush in flat, so it just conforms, and it's flat against the ground. What happens is because there's also lateral motions or forces on the roof, it buckles in like that. So the roof and the sheet metal was actually deforming in towards the occupant as it's also moving laterally towards the occupant. So this clearly

shows this V-shaped buckling going -- going on. And that's really applying forces both laterally and downward to an occupant that's seated there.

(Tr. 284-285.) (Emphasis added.)

* * *

Q. And given the absence of evidence of him being out -- his head getting outside the vehicle, do you have an opinion whether or not the roof crush is what caused the basilar skull fracture to kill him?

A. I believe that the roof crush produced the mechanism that caused the basilar skull fracture and the brain injuries that resulted in the death. Yes.

Q. And if you were to limit the roof crush to two to three inches into the driver's compartment, would he walk away from the accident with minor injuries?

A. I believe that's the case, because if you limit it to that amount, then you're going to limit and prevent this V buckling from occurring, and I believe that would be the case. Yes.

(Tr. 352-353.) (Emphasis added.)

The import of Dr. Peles's testimony was that Sammy's fatal injury was not, as Ford asserts, related to the proximity of his head to the roof (Br. in Chief 18), but to the V buckling of the roof resulting from its collapsing more than two to three inches. Dr. Peles stated that when the injury actually occurred, Sammy's head was, of course, in contact with the roof header panel. (Tr. 382-383.) Prior to the impact his head may have been two to three inches away from the roof header. (*Id.*) However, the critical factor in

Sammy's injury was not the distance from the roof to his head, but the extra component of force resulting from V buckling of the roof structure. It was the roof caving in which imparted fatal force to Sammy's head. Without objection, Dr. Peles testified that based upon a recent study published by the Insurance Institute for Highway Safety it was his opinion that the forces associated with V buckling of the roof were sufficient to cause the basilar skull fracture from which Sammy died. (Tr. 345-346, 352.)

Ford asserted, contrary to the testimony of the medical examiner (Deposition of Ian Paul 23), that Sammy received his injury outside the vehicle. (Tr. 1382-1383.) Consequently, under Ford's theory the deformation of the roof was irrelevant, and Ford did not introduce evidence to rebut the Plaintiff's proof that V buckling of the roof could reasonably have been prevented. Nevertheless the district judge sought to clarify his understanding of the forces which caused the roof to buckle. In the colloquy set out below between the judge and Dr. Peles outside the hearing of the jury, Dr. Peles explained his testimony that Sammy's fatal injury was not caused by the crushing of the roof *per se*, but by the V-buckling caused by excessive roof crush.

THE COURT: Now, when Sammy is pushed up into that upper corner of the truck, we're not saying his head went out, we're saying he's in the upper corner of the truck, and now this is at

the time that this blunt force primary impact occurs at the three-quarter turn; correct?

THE WITNESS: Correct.

THE COURT: All right. Now, here's my question: Obviously, he is -- and I think we're saying he is up in the area of within a few inches of the upper corner of the truck, correct?

THE WITNESS: Yes.

THE COURT: And this force that you're describing is received while he's in the upper portion of the truck, or when he's down to the next slide, which shows the resting position?

THE WITNESS: It's received as the roof starts to cave in, as this portion starts to buckle -- as the lateral crush is occurring and the buckling is occurring is when it's received.

(Tr. 478-479.) (Emphasis added.)

Dr. Peles's reference to when the roof started to cave in unambiguously indicates the point in time when the lateral and vertical forces coincided to produce V buckling.

In further colloquy with the district judge, Dr. Peles again clarified that if the roof had been strong enough to resist V buckling, the mere deformation of the structure a few inches would not have caused Sammy's injury, regardless of the position of his head in relation to the roof.

THE COURT: Okay. And have you made any determination of the severity of the impact that would have occurred within that first two- to four-inch collapse of the roof?

THE WITNESS: I've examined rollover crash testing that looks at forces applied to the head and neck of occupants, yes. We did not discuss that in the testimony.

THE COURT: No, you didn't, and that's my question, because, obviously, if within that first two to four inches of that impact, that impact can be severe enough to cause very serious injury.

THE WITNESS: Yes. The problem is that the -- if it was a strong roof, two to four inches would not have caused the V buckling initially. You wouldn't have had that original cave-in that's causing the injury. So even though the injury is occurring early on, it's different in a strong roof versus a roof that laterally deforms and V buckles like this.

THE COURT: Well, if the primary force is -- are you saying the primary force isn't hitting him within that first two to four inches of this roof crush?

THE WITNESS: I would say that the cave-in starts -- yes, early, it starts buckling in, laterally deforming very early.

(Tr. 479-481.) (Emphasis added.)

This exchange clarified the judge's understanding of Dr. Peles's testimony to the jury: that if the roof had been stronger no V buckling would have occurred (Tr. 284-285, 345-346, 388-390), and the forces acting on Sammy's head from a two to three inch deformation, which would have conformed to the shape of the ground instead of buckling in a V shape, would not have been fatal. (Tr. 284-285.) Dr. Peles reiterated this essential point in an additional colloquy with the district judge:

THE COURT: And isn't blunt force trauma when the impact occurred as opposed to when the push occurs?

THE WITNESS: Yeah, it's not a push, it's that impact, but the impact is stronger in a weak roof, because in a strong roof, the roof does not -- conforms to the ground, but in a weak roof, it can buckle, and it comes up off the ground, so it's adding another force vector -- another force to the situation that's getting it above the tolerance.

(Tr. 481.) (Emphasis added.)

Finally, Dr. Peles reiterated that if there had been no V buckling Sammy would not have received fatal injuries regardless of the initial proximity of his head to the roof at the time the roof impacted the ground:

THE COURT: So at the time of impact, are we saying -- in other words, which is again right when he goes against the roof -- are we saying he wasn't going to receive that impact force in a different structure?

THE WITNESS: If he had a strong roof, that's correct, yes.

(Tr. 482.)

* * *

THE COURT: But now our testimony is that, again, with a strong -- with a stronger roof, as I'm assuming what you're testifying, that he would have received -- let me make sure I understand it -- sorry, I have to look at my notes -- he would have just walked away with only minor injuries from that impact?

THE WITNESS: I don't remember stating that, but if I did, I would agree, in that situation the forces would be below the tolerance level, yes.

THE COURT: Okay. So this blunt force trauma, then, wouldn't have occurred?

THE WITNESS: Correct.

THE COURT: Even though he was still sitting right up in the corner of the roof where the blunt force hit that truck?

THE WITNESS: Yes, because in that situation, the blunt force is lower, because we do not have the added lateral and vertical V-shaped buckling into him at the same time.

(Tr. 483-484.) (Emphasis added.)

Ford's assertion that Dr. Peles "admitted that excessive roof crush had nothing to do with the injuries" (Br. in Chief 22) is an attempt to reinvent his testimony and then attack it as being insufficient.¹ Dr. Peles made no such admission. His testimony did not turn on whether Sammy's head was against the roof when the collapse began or whether it was two to three inches away. Rather, Dr. Peles testified that the excessive roof crush that killed Sammy Gurule was V buckling, or caving in, which occurred because the roof was too weak. (Tr. 333, 345-346.) Dr. Peles's testimony was that if the roof had been strong enough to resist V buckling the impact would have only

¹ For an interesting parallel see *Muth v. Ford Motor Company*, 461 F.3d 557 (5th Cir. 2006), where an expert for the plaintiff Muth testified that the roof structure of Ford's vehicle was defectively designed because it had weak rail, pillar and header systems. On appeal Ford asserted that Muth failed to show that his vehicle was in substantially the same condition as when it was manufactured because the windshield had been replaced. Noting that "[t]he windshield's contribution, if any, to the roof strength was not part of Muth's theory of design defect" the court disapprovingly stated, "Ford cannot reinvent Muth's theory of design defect on appeal and then contend that Muth's evidence was insufficient." *Id.* at 563.

deformed the roof in the shape of the ground. (Tr. 284-285.) Such deformation would not have killed Sammy, regardless of the proximity of his head to the roof. (*Id.*)

Ford's reliance on *Duran v. General Motors Corp.*, 101 N.M. 742, 688 P.2d 779 (1983), *overruled on other ground by Brooks v. Beech Aircraft Corp.*, 120 N.M. 372, 902 P.2d 54 (1995) is misplaced. In *Duran* the Plaintiff sought to prove that the defective design and manufacture of a vehicle caused enhanced intrusion of the roof structure when it rolled over. *Id.* at 744. The testimony of the Plaintiff's expert failed to address the critical issue of how much additional intrusion was caused by defective roof design. *Id.* at 752. In contrast, Dr. Peles testified that a rollover onto a roof strong enough to resist V buckling would produce some intrusion. (Tr. 284-285.) Such a ground-shaped intrusion would not have fractured Sammy's skull. (*Id.*) The defect in the Ford Ranger roof was not its inability to resist the forces that would that kind of minimal intrusion. It was defective because it could not withstand the forces causing the additional, enhanced intrusion of V buckling. (Tr. 484.)

C. The trial court's denial of Ford's post-trial motions was not based on a misinterpretation of Dr. Peles's testimony.

Dr. Peles testified that the enhanced intrusion of the Ford Ranger roof, caused by its inability to resist V buckling, caused Sammy Gurule's fatal injury. The following discussion between the trial judge and Ford's counsel at the hearing on Ford's post-trial motions for a directed verdict and judgment as a matter of law shows that the trial judge fully understood the distinction Dr. Peles drew between a strong roof that would merely deform and a weak roof that would both deform and crush:

MR. CROASDELL: . . . but Dr. Peles was going with his opinion -- was based upon the fact that Mr. Gurule's head was right up against the roof rail. And that's all we can go on, because that is the causation. Dr. Peles is the one who came in and said it was that transfer of force that created a --

THE COURT: But he said it was the transfer from the crushing effect, not the transfer of force from being right against the roof rail. That was his testimony.

MR. CROASDELL: Well, the crushing effect is in the deformation of the roof moving in, and the deformation of the roof moving in while the head was pinned up against the rail.

THE COURT: But he said if it hadn't crushed in -- if it hadn't deformed and crushed in, he would not have received the injury. That was his testimony.

(Tr. 12/29/08 at 7.) (Emphasis added). In so understanding Dr. Peles's testimony, the trial judge properly relied upon it as a basis for denying Ford's motions.

Ford's argument regarding evidence of Sammy's head position at the time of injury (Br. in Chief 16-17) is misleading. As the trial judge properly observed in the exchange above, Dr. Peles's testimony was that the mere deformation of the roof while Sammy's head touched it was not the cause of his injuries. Rather, it was the caving in or V buckling of the roof – the enhanced deformation of a roof inadequate to resist the combined lateral and vertical forces of a rollover – that caused Sammy's injuries. With regard to Sammy's head position Dr. Peles testified as follows:

Q. And it's your belief that at the time that the injury occurs, the occupant's head is basically on the roof rail or the roof panel junction.

A. Yes. It's actually on the -- it's actually on the header panel. It's not on the roof rail. It's near that juncture of the -- of the header panel and the plastic roof rail strip.

Q. Even basically in contact, though, with that roof panel header junction.

A. He certainly is at rest. I'm not -- when the -- when it started, he's probably not right there. He's within that area, but not right on it.

Q. Okay. If not right on it, how far away?

A. Well, we see where the blood started. We showed the pictures where that red blood started. So I didn't try to scale it, but it's within probably two to three inches.

(Tr. 382-383.) This testimony established that when the injury occurred, Sammy's head was against the roof. However, that fact in itself was not determinative of his injury. The determinative fact was that the roof was not strong enough to prevent V buckling. Regardless of his head position Sammy would not have been fatally injured by a roof which deformed but which did not V buckle.²

Significantly, Ford's theory was that Sammy's death had nothing to do with the strength of the roof because his injury occurred outside the car. (Tr. 1382-1383.) The dispute to be resolved by the jury was thus whether Sammy was killed by his head hitting the ground, or whether his head stayed in the car and he died from the forces of V buckling. The evidence was sufficient for the jury to conclude that Sammy's head stayed in the truck,

² Ford's reinvention of Dr. Peles's testimony is an attempt to resurrect on appeal the so-called "diving defense" it abandoned (Tr. 838) for the theory that Sammy's was killed because his head hit the ground outside his window. The diving defense, which Ford has advanced in other roof crush cases, asserts that head injuries occurring inside the vehicle during a rollover accident have nothing to do with roof failure, and cannot be prevented without unfeasible race-car type body restraints, because the centrifugal forces generated by the rolling vehicle cause even seat-belted occupants to dive into the roof with deadly force. *See, e.g. Muth v. Ford Motor Company*, *supra* n.1, 461 F.3d at 560.

and that V buckling enhanced the slight injury Sammy would have received if the roof had been adequately built to resist collapse, regardless of the proximity of his head to the roof at the time its deformation began.

II. THE PLAINTIFF'S EVIDENCE WAS SUFFICIENT TO PROVE THAT THE ROOF OF THE FORD RANGER WAS DEFECTIVE AND NEGLIGENTLY DESIGNED.

A. Ford did not preserve its claim of error in the admission of Dr. Huerta's testimony.

Absent plain error affecting fundamental rights "a party may not claim error predicated upon the admission of evidence unless the record shows a timely and specific objection." *Ennis v. Kmart Corp.*, 2001-NMCA-068, ¶ 24, 131 N.M. 32, 33 P.3d 32; Rule 11-103(A)(1) NMRA (2006). On appeal Ford asserts that the trial court abused its discretion "by admitting Dr. Huerta's opinions on whether the 1993 Ranger roof was unreasonably dangerous and on the feasibility and safety of alternative designs." (Br. in Chief 25.) A review of the record shows that Ford allowed Dr. Huerta to render his opinions on those issues without objecting or moving to strike as required by Rule 11-103, and that Ford's claim of error on this point is unpreserved for review.

After he had testified extensively about his expertise in structural engineering (*infra* Point II(B)), his analysis of the structure of the roof of the 1993 Ford Ranger, and the modifications which would have strengthened it

(*infra*, Point II(C)), including his un-objected to opinion that the roof could have been designed to limit intrusion in a rollover to two to three inches into the driver's compartment (Tr. 609), Dr. Huerta was asked whether in his opinion the roof of Sammy's truck was unreasonably dangerous. (Tr. 634.) Ford objected on the ground that the issue of safety was beyond Dr. Huerta's expertise. (*Id.*) The trial court ruled that the Plaintiff needed to lay additional foundation for Dr. Huerta to render an opinion on the question of the roof's dangerousness. (Tr. 637-638.)

To lay that foundation the Plaintiff elicited Dr. Huerta's testimony that he has expertise in "hazards analysis," an engineering method of assessing product safety. (Tr. 638-639.) Such an analysis, he stated, "will reveal if a product is unreasonably dangerous." (Tr. 647.) He referred to a 1991 Ford document citing data showing that rollover accidents in light trucks resulted in far more head injuries from impact with the interior structure and far more fatalities than rollover accidents in cars. (Tr. 641-642, 643, *see also* R.P. 2502.) He established that such information must be taken into account by an engineer performing a hazards analysis. (Tr. 642.) He testified that he performed a hazards analysis of the 1993 Ford Ranger. (Tr. 646.)

During the course of this testimony the trial court carefully ensured that Dr. Huerta not be allowed to prematurely state an opinion on the ultimate issue of whether the roof was unreasonably dangerous until a thorough foundation had been established regarding his hazard and safety analysis of the roof. (Tr. 644-651.) Then, without objection from Ford, Dr. Huerta gave the following testimony with regard to both dangerousness and the feasibility of alternative designs:

Q. (BY MR. RAGAN) Dr. Huerta, when we broke, we were talking about doing a hazard analysis to determine if something is unreasonably dangerous, and did you conduct such an analysis with regard to the '93 Ranger?

A. Yes. We basically did --

Q. All right. And can you tell me what your hazard analysis consisted of, what you looked at?

A. Well, the things that we've been discussing, the structure of the vehicle and its response to loading, especially in the drop testing we did.

Q. All right. Did you consider Dr. Peles' opinions that the roof had -- the roof crush in the Gurule vehicle had been limited to two or three inches over the driver's area, that he would have walked away with relatively minor injuries?

A. Yes, of course.

Q. Did you consider the exhibit we marked earlier that talked about the frequency of rollovers and rollover fatalities in light trucks?

A. Yes.

Q. How does that play into a hazard analysis?

A. Well, that's a red flag. Those statistics are a red flag. I would give -- if that many people are dying in rollover situations, then I would carefully look at my design to try to . . . minimize that hazard.

Q. When you're doing a hazard analysis, do you look at the feasibility or the cost of a design that would fix a problem?

A. Yes. Of course, proper engineering procedure is that once you identify a problem, fix it, you design it out if it is technologically feasible, and if it's economically feasible, then it's incumbent on the designer to make it as safe as possible.

Q. All right. And did you find the solutions that you found with regard to the Ranger vehicle -- did you find that those were both technologically and economically feasible?

A. Yes, certainly. The technology is well known, and we illustrated it partially with the Mustang roof in terms of cost. I think that the ballpark hundred dollars cost is reasonable.

Q. And in a hazard analysis, if you have -- if you have a danger of the roof caving in, in relation to deaths in rollovers -- if you have that as the danger, and you have a technologically and economically feasible solution to it that costs about a hundred dollars, what would the hazard analysis tell you to do?

A. Then it's incumbent on the designer to do that . . . That's what's taught even at the undergraduate level.

Q. And if the designer fails to do that, does that make the product unreasonably dangerous?

A. Yes, it does.

Q. All right. And is that what happened in the -- with the '93 Ranger?

A. Yes, it is.

Q. And so is it your opinion that the 1993 Ranger is unreasonably dangerous?

A. Yes, it is.

(Tr. 663-666.)

Ford did not move to strike this testimony, to which it had not objected. Ford does not claim that its admission constituted plain error. Accordingly, Ford's claim regarding the admission of Dr. Huerta's opinions on the dangerousness of the roof and the feasibility of safer alternative designs is unpreserved. Rule 11-103(A)(1). Although Ford refers to its post-trial motions as having preserved its claim (Br. in Chief 25) it is well-settled that objections to the admission of evidence made in post-trial motions come too late. *Goodloe v. Bookout*, 1999-NMCA-061, ¶ 13, 127 N.M. 327, 980 P.2d 652. Ford's claim regarding the admissibility of Dr. Huerta's testimony is unreviewable.

B. Dr. Huerta was qualified to testify that the roof of the Ranger was defective and negligently designed.

The trial court's admission of scientific evidence, like the admission of other evidence, is reviewed for abuse of discretion. *State v. Aleman*, 2008-NMCA-137, ¶ 21, 145 N.M. 79, 194 P.3d 110. The focus of the inquiry is relevance – whether the expert's testimony will “assist the trier of

fact to understand the evidence or to determine a fact in issue.” *State v. Hughey*, 2007-NMSC-036, ¶ 17, 142 N.M. 83, 163 P.3d 470. The inquiry is flexible. *State v. Tollardo*, 2003-NMCA-122, ¶ 17, 134 N.M. 430, 77 P.3d 1023. The factors to be considered are not “etch[ed] into stone.” *State v. Alberico*, 116 N.M. 156, 168, 861 P.2d 192, 204 (1993).

Dr. Huerta has a Ph.D. in mechanical engineering and has focused his work on the areas of stress analysis, structural analysis and machine design. (Tr. 505-506.) He has taught stress analysis, structural engineering and finite element analysis at the University of Texas, El Paso. (Tr. 512.) He has applied his expertise in these areas to the design and testing of many kinds of structures, including towers, flight wheels, automotive wheels, missile components, military munitions trailers and tractor-trailer rigs for transporting radioactive materials. (Tr. 508, 513-514.) He has operated plants manufacturing military components. (Tr. 512-514.)

The basic principles Dr. Huerta applied in his analysis of the Ranger broadly “apply across the board to all fields of engineering. . . .” (Tr. 670-671.) The investigations Dr. Huerta performed in this case into the structure of the Ford Ranger roof are fundamental engineering analyses for determining how and in what areas structures are going to fail and how to design products so they do not cause injury. (Tr. 638-639.)

Ford did not object to Dr. Huerta rendering an opinion as a structural engineer. (Tr. 516.) Ford's objection was to Dr. Huerta testifying as to "auto design safety." (Tr. 516, 634-635.) On appeal Ford argues that Dr. Huerta's training and experience limit his expertise to the analysis of "non-passenger carrying structures and equipment." (Br. in Chief 28.) However, Ford made no showing that structural analysis of pick-up truck roofs requires specialized knowledge beyond Dr. Huerta's broad, unchallenged expertise in the analysis and manufacture of a many other kinds of structures and vehicles. Dr. Peles's expertise was appropriate to aid the jury in understanding the structural and safety issues concerning the Ranger roof.

The trial court's decision to allow Dr. Huerta to testify that the Ranger roof was unreasonably dangerous was not, as Ford asserts, "driven . . . by the fact that Plaintiff had no other expert to render such opinions." (Br. in Chief 26.) It was based on the fact Dr. Huerta was a qualified engineer whose testimony was based upon relevant engineering principles. Because engineering principles have broad application Dr. Huerta was qualified to testify about the safety of machinery or equipment without having actually designed or built pickup trucks. "[A]n expert is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579,

592, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). *See, e.g., Couch*, 2002-NMCA-084, ¶ 14 (non-engineer expert in evaluating product safety was qualified to testify about inadequacy of safety mechanisms on paving machine even though he had not designed such machinery.)

Dr. Huerta's qualifications to testify about the safety of the Ford Ranger roof and the feasibility of alternative designs were not in doubt, and the trial court properly exercised its discretion in allowing his testimony on those matters. Even if doubt had existed it should have been "resolved in favor of admission, rather than exclusion." *Hughey*, 2007-NMSC-036, ¶ 17. (Citation and internal quotation marks omitted.) The proper avenues for attacking the opinions of an expert witness are cross examination and the presentation of rebuttal evidence. *Id.* Ford extensively and aggressively cross examined Dr. Huerta and presented testimony critical of Dr. Huerta's methods and results. (*See generally* Tr. 679-702, 708-743.) It was up to the jury to decide if Dr. Huerta's opinions, when so tested, should be accepted or not.

C. Dr. Huerta's testimony was sufficient to prove that the roof of the Ranger was defective and negligently designed.

The severe buckling of the roof into the cab of Sammy's truck led Dr. Huerta to suspect that the failure of the roof was due to structural problems.

(Tr. 519-522.) Dr. Huerta performed several tests to analyze the adequacy of the Ranger roof. First he drop tested a two wheel drive Ranger. (Tr. 524, 527-530.)³ The vehicle was suspended 24 inches above a concrete surface and oriented so that when released it would land on that part of the roof structure being tested. (Tr. 524.) The forces generated by the drop test were comparable to the forces which deformed the roof of Sammy's truck. (Tr. 696.) The test caused severe deformation of the roof header and A pillar of the exemplar vehicle in a pattern similar to that observed in Sammy's truck. (Tr. 528-530; Pl. Ex. 881, 887.)

Dr. Huerta then drop tested a heavier four wheel drive Ranger like Sammy's from a height of 18 inches. (Tr. 530-534.) That test also caused severe buckling of the roof header and the A pillar which was similar to the deformation of the roof of Sammy's truck. (Tr. 533; Pl. Ex. 879.) From these tests Dr. Huerta concluded that the roof structure of the Ranger was very weak, with identifiable failure points. (Tr. 533-534.)

³ Ford has used drop testing test the strength of vehicle roofs. (Pl. Ex. 70.) Although Ford's expert in automotive engineering, Larry Ragan, criticized Dr. Huerta's use of drop tests, (Tr. 1633-1636), he has used drop tests to evaluate vehicle roof strength, including testing on Ford's behalf for litigation. (Tr. 1857, 1860.) Drop testing is used by other vehicle manufacturers. (Tr. 715-716, 744, 747.)

Dr. Huerta demonstrated that the roof of the Ranger structurally weak because of both its design and the choice of materials. He obtained a Ranger roof of the same vintage and cut it into sections to see how it was constructed. (Tr. 534.) He found that the header was constructed in an open section, with no structural connection between the inner sub-frame and the outer skin. (Tr. 538.) Closed section construction, which has such connection, is well known to be stronger than open section construction. (Tr. 538.) The sheet metal of the roof header was thin and weak. (Tr. 537-538.) The roof header had only about six inches of reinforcement. (Tr. 543.) The A pillar was hollow and made of thin sheet metal. Only the bottom four inches of the A pillar were reinforced. (Tr. 539-540.) The roof headers and A pillars of Sammy's truck and of the two drop-tested production model Rangers had all buckled outside the reinforced areas. (Tr. 539-540, 543.) The side rail was also an open construction of thin sheet metal. (Tr. 541-542.) The roof structure contained a number of holes which further weakened it. (Tr. 537.) Dr. Huerta concluded that because of the Ranger roof's open section construction of thin materials, its lack of reinforcement and the holes in the structure, it was susceptible to collapse and a great deal of intrusion into the passenger area. (Tr. at 544.)

Using finite element analysis, a mathematical modeling technique, Dr. Huerta designed a method for modestly reinforcing the roof of the Ranger in a way that would vastly improve it. (Tr. 593.) Finite element analysis is a technique known to Ford at the time it designed the 1993 Ranger, and was used by Ford's engineers to evaluate whether vehicle roofs would meet design criteria. (Tr. 594-595; Pl. Ex. 1826.02.) Dr. Huerta's design included moderate reinforcements to the pillars, headers and center of the roof using small diameter steel tubing. He modified the roof of an exemplar Ford Ranger according to his design. (Tr. 593-594, 596, 599-600; Pl. Ex. 718, 719, 729.) He then drop tested the modified vehicle. (Tr. 602-603.) The test demonstrated that moderate reinforcement of the roof improved its strength dramatically, limiting intrusion of the roof structure into the passenger area above the driver's head to between two and three inches. (Tr. 605-607; Pl. Ex. 885.)

Based on his investigations, Dr. Huerta concluded that the roof of the Ranger as manufactured was unreasonably dangerous. (Tr. 666, 693.) Dr. Huerta also concluded that the roof of the Ranger could have been feasibly designed and built to limit its intrusion into the driver compartment in a rollover accident. (Tr. 608-609.) Ford knew how to build a safer roof. The roof of the 1994 Mustang was built in closed sections from heavier gauge sheet metal,

with more reinforcement. (Tr. 608.) In its marketing materials Ford touted the rollover safety of 1994 Mustang roof. (Tr. 613-618; Pl. Ex. 1818 p. 5, 1819 p. 31.)

Dr. Huerta displayed an exemplar roof from a 1994 Mustang, explaining in detail how its reinforced structure increased its strength over that of the 1993 Ranger. (Tr. 622-629.) Based upon his experience in manufacturing (Tr. 630-631), automobile industry data on the costs of increasing vehicle roof strength, and his analysis of the Ranger, Dr. Huerta concluded that the Ranger could have been similarly reinforced for about \$100.00 per truck. (Tr. 630-634.) The reinforced roof would have added only about 40 pounds to the weight of the vehicle. (Tr. 633.)

Manufacturing the Ranger with a safe roof would have been technically feasible. The design principles were well known. Ford successfully incorporated those principles into the roof of the 1994 Mustang.

Manufacturing the Ranger with a safe roof would also have been economically feasible. In 1965 Ford conducted a cost-benefit analysis if the cost of making roofs safe in rollover accidents. Ford concluded that it could easily justify spending up to \$26 per vehicle to provide "total rollover protection." (Pl. Ex. 81, p. 5.) In 1993 dollars this would have amounted to a maximum justifiable cost of \$119 per car. (Tr. 895, 926-928.) Based on this

evidence and common knowledge, the jury could infer that the value of one hundred 2008 dollars was significantly less than \$100 in 1996.⁴ Jurors may “use their common sense and apply common knowledge, observation, and experience gained in the ordinary affairs of life when giving effect to the inferences that may reasonably be drawn from the evidence.” *U.S. v. Flores-Chapa*, 48 F.3d 156, 161 (5th Cir. 1995); *see Tafoya v. Seay Bros. Corp.*, 119 N.M. 350, 352, 890 P.2d 803, 805 (1995) (a jury’s reasonable inferences on proximate cause may be based on common knowledge or experience). The effect of inflation and interest rates on the value of money is within the common knowledge of jurors. *Cassino v. Reichhold Chemicals, Inc.*, 817 F.2d 1338, 1347-1348 (9th Cir. 1987) In inflation-adjusted dollars, the cost of building a safe roof would have been less than the \$26 Ford said it was willing to spend to save lives in 1967. This makes Ford’s failure to make that expenditure inexplicable.

⁴ In fact, the value was about \$65. The U.S. Dep’t of Labor, Consumer Price Index, All Urban Consumers, U.S. city average (1982-84 = 100) for January 1993 is 138.1. The index for January 2009 is 211.08. *See <ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>*. The 1993 value of one hundred 2008 dollars is calculated:

$$\begin{aligned}100/211.08 &= x/138.1 \\211.08x &= 13,810 \\x &= 13,810/211.08 \\x &= 65.43.\end{aligned}$$

Ford's claim that there was "no evidence that an alternative roof design would have limited roof crush to two or three inches" (Br. in Chief 22) ignores an ample mass of evidence belying that assertion. Dr. Huerta's investigation and testing of the Ranger roof, his fabrication and testing of roof modifications, and his hazards analysis to determine the physical and economic feasibility of manufacturing a safe roof, proved convincingly that the Ranger roof was unreasonably dangerous and that Ford could have feasibly designed and built a roof that would have prevented Sammy's death. It could have been accomplished "without seriously impairing the usefulness of the product or without making it unduly expensive." NMUJI Civ. 13-1407 (2005), *id.* 13-1410. (See Tr. 2098-2099.)

III. THE TRIAL COURT PROPERLY ADMITTED THE TESTIMONY OF THE PLAINTIFF'S ECONOMIST ON THE VALUE OF SAMMY GURULE'S LIFE.

A. Ford did not preserve its claim of error in the admission of Mr. Patterson's testimony.

Prior to trial Ford filed a motion to exclude the testimony of the Plaintiff's economist, William Patterson, as to the value of Sammy's life based on published value-of-life studies. (R.P. 1692.) The district judge ruled that Mr. Patterson would be permitted to testify about a range of values. (Tr. 8/11/08 - 11:26:15 a.m.) At trial, following Mr. Patterson's initial testimony as to his qualifications, Ford had no objection to Mr.

Patterson testifying “as a general economist” (Tr. 891), but asserted that the Plaintiff had not laid “any sort of foundation to allow him to testify to hedonics.” (*Id.*)

The trial court recognized Mr. Patterson as “an expert in the general field of economics,” noting that the Plaintiff had not yet asked the witness anything “with regard to specialization.” (*Id.*) Then, without objection, Mr. Patterson testified that federal government agencies, including OSHA, the Federal Aviation Administration, and the EPA have all published cost-benefit studies of the costs of implementing safety measures in which they have statistically valued lives at between \$1 million and \$11 million. (Tr. 899-900.) When Plaintiff’s counsel asked Mr. Patterson to explain the concept of “compensation for loss of enjoyment of life” (Tr. 901), Ford objected only that the Uniform Jury Instructions allow the jury to award compensation for “loss of value of life but not of enjoyment of life.” (Tr. 901-902.) The trial court overruled the objection, stating that loss of enjoyment of life “is a component of the entire value . . .” (Tr. 902.)

Subsequently, the following exchange occurred:

Q. Now, are there any tools or benchmarks that you would suggest to the jury that they use in coming up with a value for the loss of enjoyment of life?

A. Certainly.

MR. CROASDELL: *Objection, Your Honor, foundation.*

THE COURT: Overruled. Benchmarks, I think, is the question, Dr. [sic] Patterson.

(Tr. 904.) (Emphasis added.) Without further objection Mr. Patterson again testified concerning a particular economic study valuing life at about \$100,000 per year in present value. (Tr. 904-907.) Mr. Patterson then explained that he uses the benchmarks of \$10,000 per year and \$100,000 per year for purposes of illustration: if the jurors believed that Sammy's life was worth \$10,000 per year they would multiply his life expectancy by that amount by and get a value about \$598,680; if they believed Sammy's life was worth \$100,000 per year they would multiply his life expectancy by the higher amount and get a correspondingly higher value. (Tr. 907.)

Under these circumstances, neither Ford's motion in limine nor its objections to "foundation" at trial satisfied the requirements of Rule 11-103(A), which provides:

Error may not be predicated upon a ruling which admits or excludes evidence unless a substantial right of the party is affected, and

(1) *Objection.* In case the ruling is one admitting evidence, a timely objection or motion to strike appears of record, stating the specific ground of objection, if the specific ground was not apparent from the context[.]

(*Id.*)

1. *A motion in limine is insufficient to preserve a claim of error.*

The prevailing view is that a motion in limine is not alone sufficient to satisfy the “timely objection or motion to strike” requirement of Rule 11-103(A). In *Buffett v. Jaramillo*, 121 N.M. 514, 914 P.2d 1011 (Ct. App. 1993), an automobile accident wrongful death case, the court held that blood alcohol test results showing that the decedent driver was intoxicated were improperly admitted where the evidence showed that the collision in which she was killed was unavoidable. Judge Hartz dissented, arguing both that the test results were relevant and admissible, and that the claim of error in its admission was unpreserved. Judge Hartz urged application of the rule in “[m]any, perhaps most, jurisdictions . . . that a motion in limine will not in itself preserve an objection to the admission of evidence, a further objection at trial being required.” *Id.* 914 P.2d at 1026-1027.⁵ The rationale for this rule is that “[o]nly by specific, timely trial objection can the trial court entertain reconsideration of the grounds of the motion in light of the actual trial testimony and the surrounding circumstances developed at trial.” *Id.*

⁵ *Jaramillo* was reversed by the Supreme Court in *Buffett v. Vargas*, 1996-NMSC-012, 121 N.M. 507, 914 P.2d 1004. Without reaching the preservation question the Court agreed with Judge Hartz that the evidence was admissible.

914 P.2d at 1026, *quoting McEwen v. City of Norman*, 926 F.2d 1539, 1544 (10th Cir.1991).

A reviewing court will reverse an overruled motion in limine only for plain errors which “seriously affect the fairness, integrity, or public reputation of judicial proceedings.” *Reddin v. Robinson Property Group Ltd. Partnership*, 239 F.3d 756, 760 (5th Cir. 2001) (citations and internal quotation marks omitted); *see also Kostelec v. State Farm Fire and Cas. Co.*, 64 F.3d 1220, 1229 (8th Cir. 1995) (holding that failure to object at trial to evidence offered in violation of ruling on motion in limine did not preserve claim of error and that admission of such evidence would only be reviewed for plain error.)

The rule that a motion in limine does not preserve a claim of error is sound. The Plaintiff urges this Court to specifically adopt the rule and hold that Ford’s motion in limine did not preserve its claim of error in the admission of Mr. Patterson’s testimony.

2. *Ford’s objections to “foundation” were insufficient to preserve a claim of error.*

Ford’s only objections to Mr. Patterson’s qualifications or testimony itself were to “foundation.” (Tr. 891, 902.) These objections were not

sufficient to preserve Ford's claim of error in the admission of Mr. Patterson's testimony.

A "general objection as to lack of proper foundation" is insufficient because it "[fails] to alert the trial court to the nature of the objections" *State v. Gray*, 79 N.M. 424, 427, 444 P.2d 609, 612 (Ct. App. 1968). *See also State v. Favela*, 79 N.M. 490, 493, 444 P.2d 1001, 1004 (1968) (holding that the objection of "no proper foundation . . . is too general, and, in the absence of something more to alert the mind of the trial court to the particular point of the objection, the overruling of the objection cannot be made the basis of reversible error.")

On appeal Ford argues that Mr. Patterson's testimony "invaded the jury's domain" (Br. in Chief 34), "was not sufficiently tied to the facts to be helpful to the jury" (*id.* 35), and "failed to meet the *Alberico* standard of scientific reliability." (*Id.*) Ford did not make these objections at the trial. Nor were these grounds apparent from Ford's objections to "foundation." Ford failed to invoke a timely ruling on the evidentiary claims it now raises, and those claims are unpreserved.

Moreover, even if its objections to "foundation" could be understood to encompass its claims on appeal, Ford waived its objections at trial. Ford permitted the Plaintiff to establish Mr. Patterson's expertise in hedonic

damages and value-of-life bench marks, and to give substantive testimony about such benchmarks without any further objection, general or specific, and without moving to strike. (Tr. 901-902, 906-907.) *See State v. Flanagan*, 111 N.M. 93, 98, 801 P.2d 675, 680 (Ct. App. 1990) (holding that in absence of continuing objection a party was required “to make specific objections to each question he did not want answered.” The issues of Mr. Patterson’s qualifications and the usefulness of the benchmark studies he cited in determining the value Sammy’s life thus became questions of fact for the jury.

B. The trial court did not abuse its discretion in admitting Mr. Patterson’s testimony on the value of Sammy’s life.

1. Mr. Patterson was qualified.

Ford asserts that because Mr. Patterson lacks a post-graduate degree in economics, and because of the employment setting in which he acquired professional experience in cost-benefit analysis, he lacks the specialized education and experience necessary to testify on hedonic damages. (Br. in Chief 33.)⁶

⁶ Ford does not suggest what specialized training and experience might be necessary (*id.*), asserting instead that no expert has the necessary qualifications because “the lost value of life is not a proper subject of expert testimony.” (Br. in Chief 34.)

The same standards for determining the qualifications of Dr. Huerta (*supra*, Point II(B)) apply to Dr. Patterson's qualifications. Doubts should be resolved in favor of admitting expert testimony, with cross-examination and rebuttal being the engines to test that expertise. *Hughey*, 2007-NMSC-036, ¶ 17.

Mr. Patterson has a bachelor's degree in economics. (Tr. 887.) He has taught extensively on a number of forensic economic topics (Pl. Ex. 957.04), and has provided expert courtroom and deposition testimony in over 120 cases. (*Id.*) He has been retained in other matters by Ford's counsel. (Tr. 999-1000.) Ford recognized Mr. Patterson's expertise "as a general economist." (Tr. 891.) Ford vigorously cross-examined Mr. Patterson on his qualifications as well as the substance of his testimony. (Tr. 930-938; 944-952; 958-963.)

The benchmark studies cited by Mr. Patterson in his testimony were based upon cost-benefit analyses. (Tr. 898-900; 969-971.) Absent a showing that cost-benefit analysis is beyond the basic tools used by economists or that Mr. Patterson lacked a command of that tool, it was within the trial court's discretion to recognize Mr. Patterson's expertise regarding value-of-life analyses. *See Couch supra*, 2002-NMCA-084, ¶ 13-14 (expert's testimony based on general expertise in field admissible where relevant and

helpful to jury); *see also Bucks County Bd. of Com'rs v. Interstate Energy Co.*, 403 F. Supp. 805, 816 (D.C. Pa. 1975) (recognizing cost-benefit analysis as an “economic tool.”)

2. *Benchmarks were helpful to the jury in quantifying the other evidence before it of the value of Sammy Gurule's life.*

In New Mexico courts, “where an expert witness has been properly qualified, it is not improper for the trial court to permit an economist to testify regarding his or her opinion concerning the economic value of a Plaintiff's loss of enjoyment of life.” *Sena v. N.M. State Police*, 119 N.M. 471, 478, 892 P.2d 604, 611 (Ct.App.1995). As long as the economist does not tell the jury how to quantify the evidence regarding a person's enjoyment of life, testimony on the range of values given in statistical studies is “helpful in evaluating [p]laintiff's claim” because it provides “concrete guidance to the jury in determining a percentage of the monetary value that might reasonably compensate [p]laintiff.” *Couch*, 2002-NMCA-084, ¶ 19.

Ford nevertheless asserts that Mr. Patterson's testimony about the range of economic values for human life in the studies he cited is not a proper subject for expert testimony because it invades the province of the jury. (Br. in Chief 34.) Ford relies upon federal district court rulings

excluding such testimony, scholarly criticism, and the decision of the Tenth Circuit in *Smith v. Ingersoll-Rand Co.*, 214 F.3d 1235 (10th Cir. 2000) which noted such cases and criticism. (Br. in Chief at 34.)⁷

General criticisms of quantified value-of-life testimony, however, do not address the question of whether in a particular case, “[expert] testimony is sufficiently reliable and relevant *to help the jury* in reaching accurate results.” *Banks v. IMC Kalium Carlsbad Potash Co.*, 2003-NMSC-026, ¶ 36, 134 N.M. 421, 77 P.3d 1014. (Citation and internal quotation marks omitted; emphasis in original.) The admissibility of such evidence is better left to the sound discretion of the trial judge under the circumstances of the particular case rather than being subject to a blanket rule of exclusion. This principle underpins the admissibility of polygraph evidence in New Mexico, despite controversy in the scientific community over its validity and the general reluctance of courts to admit it. As the Supreme Court explained in *Lee v. Martinez*, 2004-NMSC-027, 136 N.M. 166, 96 P.3d 291:

⁷ Ford misrepresents the holding of *Smith* as “excluding expert’s quantification of hedonic damages” (Br. in Chief 34.) (Emphasis in original.) In *Smith* the court noted that quantification testimony has been criticized by commentators and rejected in district courts, but made no holding on its admissibility, because that question was not before it for review. *Smith* at 1245.

In each individual case, the district court must determine whether the proffered expert is qualified under Rule 11-707 to give expert testimony on polygraph results. Additionally, there can be little doubt that polygraph evidence indicating that a defendant or witness is telling the truth or lying about a specific incident at issue would be helpful to the jury.

Id. ¶ 17.

In the particular circumstances of this case Dr. Patterson's testimony was relevant, helpful, and respectful of the jury's province to determine damages. *See C.E. Alexander & Sons, Inc. v. DEC Int'l, Inc.*, 112 N.M. 89, 95, 811 P.2d 899, 905 (1991) ("It is within the province of the jury to determine the proper amount of damages.") Jurors are not called upon to make value-of-life assessments in normal daily life. The studies cited by Mr. Patterson provided jurors with useful examples of how various decision-makers go about the unusual and difficult task of making value-of-life assessments. He did not suggest that the jury assign any particular value to Sammy's life. To the contrary, he testified:

I'm not trying to suggest any number to [the jury.] If they believe that the value of the pleasure of life is zero, then they should put zero. If they think it's a million dollars per year, then they should use that -- that benchmark.

(Tr. 958-959.) The ultimate determination of the value of Sammy's life, testified Mr. Patterson, was "an issue for the jury. It's not for me. They're the ones that will have all the evidence, all the testimony." (Tr. 909.)

All the testimony about the value of Sammy's life went far beyond anything Mr. Patterson briefly told the jury about value-of-life studies. The jury learned that Sammy was a bright, ambitious, energetic, talented and generous young man. Born to a ranching family (Deposition of Harry Bryant 10), he was taught by his father to "work hard, be honest, and stand up for what you believe." (Tr. 1013.) His short life was filled with accomplishment. By the time he was 10 or 12 he was already purchasing and selling livestock. (Tr. 1014.) He belonged to Future Farmers of America. (Tr. 876.) In 2005, at age 17 (*see* Pl. Ex. 959), Sammy's heifer won grand champion in two regional fairs, and first in breed at the New Mexico State Fair. (Tr. 1018.) That year Sammy's steer also won grand champion at the Rio Arriba County Fair (Tr. 1021), and Sammy won a second place in showmanship at the State Fair. (Tr. 1018.) He won the Crystal Julian showmanship buckle at the Rio Arriba County Fair, (Tr. 1021-1022), and a horse showmanship award at the Rio Arriba County Horse show. (Tr. 1023.)

Sammy and his father met Dr. Harry Bryant when they guided him on an elk hunt. Dr. Bryant, a veterinarian from Arkansas, was impressed with Sammy and took him under his wing. (Deposition of Harry Bryant 8-9, 10-13.) The summer he was 16 Sammy spent a week in Arkansas helping out at Dr. Bryant's veterinary clinic. (*Id.*) The next summer he stayed with Dr.

Bryant for two weeks. (*Id.*) Sammy wanted to be a vet, and he was interested and excited about what he learned working with Dr. Bryant. (*Id.*) At the time of his death, Sammy had accepted Dr. Bryant's invitation to spend the entire summer after his first year of college working at Dr. Bryant's veterinary clinic. (*Id.* 16-17.)

In high school Sammy had a grade point average of 3.6. (Tr. 764; Pl. Ex. 959.) He belonged to the National Honor Society. (Tr. 874; Pl. Ex. 963.04.) At the time he died he was in a four year animal science degree program at New Mexico State University. (Tr. 761.) He was attending school on a competitive scholarship. (Tr. 757-758.) The program's recruitment coordinator testified that all the factors on which the scholarship was awarded – academics, motivation, drive, determination, responsibility and communication – were “very apparent with Sammy.” (Tr. 762.) He found Sammy to be a “very unique student[,] . . . very outgoing, very goal-oriented” (Tr. 775), . . . “a young gentleman” (Tr. 777), . . . “respectful.” (*Id.*) Sammy won other scholarships from the Future Farmers of America, Kit Carson Electric Cooperative and the Holy Cross Hospital Foundation. (Tr. 1026-1028, 1029-1030; Pl. Ex. 963.05.)

Sammy was not only hard-working and goal-oriented, he was generous. When a friend had cancer Sammy and his father both shaved their

heads as a gesture of support. (Tr. 868.) The summer before he died Sammy held a free 4-H Club clinic for kids in Tierra Amarilla on how to show and care for goats. (Tr. 1415.) He also liked just having fun skiing, fishing, hunting and traveling. (Tr. 884.)

This was the evidence the jury considered in assigning a value to Sammy's life. In closing argument Plaintiff's counsel urged the jury to reach just such an independent judgment, based not on benchmarks but on Sammy's character:

You know, I know what kind of a kid Sammy was, you know, a kid who at the crack of dawn is up and his bed is made so that you can flip a quarter -- bounce a quarter off of it, like Dr. Bryant said, who is ready to go to work by the time the boss is ready to go to work, a kid who says yes, sir, no, sir, always doing what's required of him.

A kid who goes and -- and volunteers his time to help other kids participate in county fair, participate in livestock events, helps 4-H clubs to do better, a kid who does all of that in addition to making good grades, going to high school, making As, going to college, making As, getting scholarships.

(Tr. 2131-2132.)

* * *

And down here, under the -- the value of Sammy Gurule's life apart from his earning capacity, obviously, that's something that's a personal thing. It varies from individual to individual. Each of you will have to kind of search your hearts and think about what's the value of a life of a person like Sammy Gurule.

(Tr. 2132.)

The jury's valuation of hedonic damages at \$5.8 million (R.P. 2265), about midway between the benchmarks cited by Mr. Patterson (Tr. 899-900), reflects an independent weighing of the value of Sammy's life based on his unique attributes, untied to any particular benchmark. Ford's objection is abstract, removed from the weight of evidence before the jury regarding the life-value of an extraordinary young man. When considered in light of all the evidence about Sammy's life, the testimony about the use of benchmarks was relevant and helpful. The trial court's admission of Mr. Patterson's benchmark testimony was clearly within its discretion.

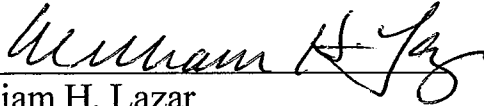
Even if it was objectionable in some abstract sense, the admission of benchmark testimony was harmless in the circumstances of this case. The evidence which predominated the issue of life-value was the evidence about Sammy himself. Dr. Patterson's testimony was no more than a footnote providing a context for the jury's independent judgment about that value. *Cf. State v. Marquez*, 2008-NMCA-133, ¶ 22-23, 145 N.M. 31, 193 P.3d 578 (error in improper admission of evidence harmless where other evidence supporting jury's verdict is overwhelming.)

CONCLUSION

The evidence of which Ford complains – the testimony of Dr. Peles, Dr. Huerta and Mr. Patterson – was properly admitted and was sufficient to support the jury's award of damages based on its determinations that Ford is liable for its defective product and for its negligence. The judgment of the district court based on those determinations should be affirmed. Respectfully submitted,

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CERTIFICATE OF SERVICE

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