

SHARON R. STECHER AND JOSEPH	:	IN THE SUPERIOR COURT OF
STECHER,	:	PENNSYLVANIA
	:	
Appellees	:	
	:	
v.	:	
	:	
FORD MOTOR COMPANY, REED, INC.,	:	
d/b/a REED CHEVROLET PONTIAC	:	
OLDSMOBILE and JOHN DOE, INC. or	:	
JOHN OR JANE ROE,	:	
	:	
Appellants	:	No. 461 MDA 2000

Appeal from the Judgment Entered October 3, 2000
 In the Court of Common Pleas, Civil Division
 Lancaster County, No. 549-94

SHARON R. STECHER AND JOSEPH	:	IN THE SUPERIOR COURT OF
STECHER, h/w	:	PENNSYLVANIA
	:	
Appellants	:	
	:	
v.	:	
	:	
FORD MOTOR COMPANY and REED,	:	
INC., d/b/a REED CHEVROLET	:	
PONTIAC OLDSMOBILE,	:	
	:	
Appellees	:	No. 1667 MDA 1999

Appeal from the Judgment Entered October 3, 2000
 In the Court of Common Pleas, Civil Division
 Lancaster County, No. 549-94

BEFORE: JOHNSON, TODD, and TAMILIA, JJ.

*****Petition for Reargument Filed 05/22/2001*****

OPINION BY TODD, J.: Filed: May 8, 2001

*****Petition for Reargument Denied 07/16/2001*****

¶ 1 In this products liability action, we are called upon to decide whether a plaintiff in an enhanced injury case bears the burden of proving the precise extent of injuries arising from a defect when the injury suffered is indivisible

by nature. Sharon R. Stecher, Joseph Stecher and Ford Motor Company (“Ford”) have cross-appealed the judgment¹ entered in favor of Ford. For the reasons that follow, we vacate the judgment and remand this matter for a new trial consistent with this Opinion.

¶ 2 This action arises from a traffic accident in February 1992. Sharon Stecher was driving a 1983 Ford LTD westbound on a snow and ice covered road when the vehicle spun as she approached a curve. Mrs. Stecher’s vehicle crossed the centerline of the road and its front end struck an embankment on the opposite side of the road. The vehicle then spun back onto the roadway and continued to move westbound, with the driver’s side of the vehicle leading, but in the eastbound travel lane. The LTD then collided with an eastbound pickup truck. The point of impact on the LTD was approximately at the “B” pillar, the post that runs vertically from the floor to the roof of the vehicle, behind the driver’s left shoulder. Mrs. Stecher suffered a serious brain injury and a pelvic fracture as a result of the collision.

¹ We note that the parties initially purported to appeal the trial court’s September 20, 1999 Order denying their post-trial motions, prior to having judgment entered on the verdict. Such an appeal would be interlocutory absent final judgment and this Court would be without jurisdiction to hear it. *See Johnston the Florist, Inc. v. Tedco Constr. Corp.*, 657 A.2d 511, 514 (Pa. Super. 1995). Upon the Stechers’ praecipe, however, the trial court entered final judgment on October 3, 2000. Since entry of final judgment during the pendency of an appeal is sufficient to perfect our jurisdiction, *see id.* at 513, we will address the appeal on its merits and have corrected the caption accordingly.

¶ 3 The Stechers brought this products liability action in 1994. Although they pursued several theories of liability during the pretrial phase of the litigation, at trial they withdrew all claims except for liability based on a manufacturing defect.² The Stechers' sole theory of liability at trial was that the vehicle's B pillar was unreasonably dangerous because its base welds failed, causing it to detach at the base and strike Mrs. Stecher's head.

¶ 4 Prior to trial both sides filed motions in limine. The Stechers sought to preclude Ford from introducing video tapes of crash tests that had been produced for this case and from introducing any testimony based on statistics about similar incidents. Ford sought to preclude the Stechers from introducing a "Dynaman" animation that had been produced for this case and was designed to depict Mrs. Stecher's movements within the vehicle during and after the impact. The trial court excluded both the Ford video of the crash tests and the Stechers' Dynaman animation. The trial court refused to exclude all testimony based on statistics, but directed the Stechers to provide specific objections to any such proposed testimony.

¶ 5 This matter was tried before a jury in April 1999. The jury returned a verdict finding that the Ford LTD driven by Mrs. Stecher was defective, but that the defect was not a substantial factor in causing Mrs. Stecher's

² Reed Chevrolet was dismissed from the action without prejudice by stipulation of the parties and with approval by the trial court on August 16, 1996.

injuries. This timely cross appeal followed the denial of the parties' post-trial motions.

¶ 6 On appeal, the Stechers raise four issues:

1. Whether the trial court erred by instructing the jury that plaintiffs were required to prove an enhanced injury attributable to the manufacturing defect.
2. Whether the trial court erred by refusing to instruct the jury on concurring causes based on the rationale that this case is a products liability action rather than a negligence action.
3. Whether the trial court erred by permitting [Ford's] experts to testify about statistical analysis and accident frequency/severity studies where [Ford's] own experts acknowledge such information had no relevance to the specific issues in this case.
4. Whether the trial court erred in precluding [the Stechers'] expert's testimony without an evidentiary hearing.

(Stecher Brief, at 3.)

¶ 7 In its cross appeal, Ford presents two issues:³

1. Whether the trial court erred in denying Ford's motions for a compulsory nonsuit and directed verdict when the Stechers failed to present evidence that Mrs. Stecher suffered enhanced injuries above and beyond those she would have sustained as a result of the initial collision?
2. Whether the trial court erred in precluding Ford from introducing the videotapes of the crash tests to illustrate "general physical principles" and not as a purported reconstruction of the accident?

(Ford Brief, at 7.)

³ We have paraphrased Ford's issues on appeal for ease of review.

¶ 8 We begin with the central issue – the propriety of the trial court’s instructions regarding a plaintiff’s burden of proof under the enhanced injury doctrine, also known as the crashworthiness or second collision doctrine.⁴ In reviewing the trial court’s refusal to grant post-trial motions for a new trial on the basis of alleged errors in the jury instructions, we will reverse only if the trial court “committed a clear abuse of discretion or an error of law which controlled the outcome of the case.” *Dickens v. Barnhart*, 711 A.2d 513, 515 (Pa. Super. 1998) (citation omitted). Moreover, we examine “the charge in its entirety against the background of evidence in the case to determine whether error was made and whether it was prejudicial. [This Court] will not consider only portions taken out of context, nor will it reverse for isolated inaccuracies.” *Id.*

¶ 9 The enhanced injury doctrine is “a subset of a products liability action” and “provides that a manufacturer/seller is liable in ‘situations in which the defect did not cause the accident or initial impact, but rather increased the severity of the injury over that which would have occurred absent the . . .

⁴ Ford argues that the Stechers waived any alleged error in the trial court’s instructions on the burden of proof by submitting a proposed jury instruction that Ford contends conceded that they bore the burden of proving Mrs. Stecher’s enhanced injuries. (Ford’s Brief, at 25.) The Stechers counter that the instruction in question was related to their design defect claim only, a claim that they later withdrew. (Stechers’ Reply Brief, at 9.) Our review of the record leads us to conclude there was no waiver. Accordingly, we shall address this issue on the merits.

defect.”⁵ *Kupetz v. Deere & Co.*, 644 A.2d 1213, 1218 (Pa. Super. 1994) (citations omitted). In this case, the issue is whether a plaintiff in such an action must quantify precisely the extent of the enhanced injuries arising from the defect or whether the plaintiff need only prove that the defect increased the harm.⁶

¶ 10 In the present case, the trial court instructed the jury that, in addition to proving the vehicle was defective and the defect was the proximate cause of Sharon Stecher’s injuries, the Stechers had the burden to “show some method of establishing the extent of the . . . enhanced injuries attributable to the defect.” (N.T. Trial, 4/21/99, at 1905.) The trial court then elaborated: “It is the plaintiffs’ burden to establish the extent of the enhanced injuries. If the defect increased the severity of the injury over what would have occurred without that defect, the manufacturer is liable for the increased injuries suffered by the plaintiff.” (*Id.* at 1907-08.)

⁵ In *Kupetz*, the alleged defect was a design defect. *Id.* In the present case, the Stechers proceeded to trial under the theory that the Ford vehicle was manufactured defectively. While the elements of these claims vary slightly, this doctrine has been applied to manufacturing defects as well as design defects. *See, e.g., Poliseño v. General Motors Corp.*, 744 A.2d 679 (N.J. Super. Ct. App. Div.), *appeal denied*, 754 A.2d 1213 (N.J. 2000).

⁶ This issue arises only in situations, such as the catastrophic brain injury in the present case, where the injury is indivisible. *See, e.g., Trull v. Volkswagen of America, Inc.*, 761 A.2d 477, 481 (N.H. 2000) (death and brain injury); *General Motors Corp. v. Edwards*, 482 So.2d 1176, 1190 (Ala. 1985) (severe burns), *overruled on other grounds, Schwartz v. Volvo North America Corp.*, 554 So.2d 927 (Ala. 1989); *Czarnecki v. Volkswagen of America*, 837 P.2d 1143, 1148 (Ariz. Ct. App. 1991) (paraplegia caused by spinal cord injury).

¶ 11 In its opinion, the trial court stated that *Kupetz, supra*, compelled this instruction. We disagree. In *Kupetz*, this Court endorsed the enhanced injury doctrine as a “permissible theory of recovery in this Commonwealth.” *Kupetz*, 644 A.2d at 1219. In so doing, we quoted the elements necessary to recover under this doctrine from two decisions from the United States District Court for the Eastern District of Pennsylvania⁷ that followed the United States Court of Appeals for the Third Circuit’s decision in *Huddell v. Levin*, 537 F.2d 726 (3rd Cir. 1976). *Id.* at 1218. In *Kupetz*, however, this Court affirmed the judgment in a case where a jury trial resulted in a defense verdict. Thus, this Court did not have the occasion in *Kupetz* to consider the burden of proof regarding allocation of damages.

¶ 12 Similarly, we disagree with Ford’s contention that the Supreme Court of Pennsylvania “defined the elements of a crashworthiness claim” in *Schroeder v. Pennsylvania Dep’t of Transp.*, 551 Pa. 243, 710 A.2d 23 (1998). (Ford’s Brief, at 19.) While the Court in *Schroeder* did cite to *Kupetz* in a footnote for the elements of an enhanced injury claim, the specific issue of the allocation of the burden of proof was not before the Court. Thus, we find that this specific question is an issue of first impression in the appellate courts of Pennsylvania.

⁷ *Dorsett v. American Isuzu Motor, Inc.*, 805 F. Supp. 1212 (E.D. Pa. 1992), *aff’d without opinion*, 977 F.2d 567 (3d Cir. 1992); *Craigie v. General Motor Corp.*, 740 F. Supp. 353 (E.D. Pa. 1990).

¶ 13 The jurisdictions that have grappled with this issue previously have developed two contrary approaches. The *Fox/Mitchell*⁸ approach requires a plaintiff to prove only that a defect “was a substantial factor in producing damages over and above those which were probably caused as a result of the original impact or collision.”⁹ *Mitchell*, 669 F.2d at 1206. If the plaintiff does so, “the burden of proof shifts to the tortfeasors to apportion the damages between them.” *Trull*, 761 A.2d at 481. However, if the defect “is found to be a substantial factor in causing an indivisible injury such as paraplegia, death, etc., then absent a reasonable basis to determine which wrongdoer actually caused the harm, the defendants should be treated as joint and several tortfeasors.” *Mitchell*, 669 F.2d at 1206.

⁸ See *Fox v. Ford Motor Co.*, 575 F.2d 774 (10th Cir. 1978) (predicting Wyoming law), and *Mitchell v. Volkswagenwerk, AG*, 669 F.2d 1199 (8th Cir. 1982) (predicting Minnesota law).

⁹ Enhanced injury cases frequently, as in the present case, arise from automobile accidents. The precise language used by the cases to consider issues relating to enhanced injury cases, therefore, often is couched in terms of impacts and collisions. We note, however, that enhanced injury situations are not limited to collisions. See, e.g., *Hillrichs v. Avco Corp.*, 478 N.W.2d 70, 75 (Iowa 1991) (injury from grain harvesting machinery), *abrogated on other grounds by Reed v. Chrysler Corp.*, 494 N.W.2d 224 (Iowa 1992); *Murphey v. Georgia Pacific Corp.*, 417 S.E.2d 460 (N.C. 1992) (injury while rewiring electric meter).

¶ 14 The *Fox/Mitchell* approach has been adopted in the majority of jurisdictions to consider this issue¹⁰ and by the Restatement (Third) of Torts.

Specifically, Section 16 of the Restatement (Third) of Torts provides:

§ 16. Increased Harm Due to Product Defect

(a) When a product is defective at the time of commercial sale or other distribution and the defect is a substantial factor in increasing the Plaintiff's harm beyond that which would have resulted from other causes, the product seller is subject to liability for the increased harm.

(b) If proof supports a determination of the harm that would have resulted from other causes in the absence of the product defect, the product seller's liability is limited to the increased harm attributable solely to the product defect.

¹⁰ In addition to the United States Court of Appeals for the Eighth and Tenth Circuits, at least three other circuit courts, predicting state law in the absence of controlling precedent, and the appellate courts of at least 20 states either have adopted this approach explicitly or expressed a consistent rationale. *See McInnis v. A.M.F., Inc.*, 765 F.2d 240 (1st Cir. 1985) (predicting Rhode Island law); *Shipp v. General Motors Corp.*, 750 F.2d 418 (5th Cir. 1985) (predicting Texas law); *McLeod v. American Motors Corp.*, 723 F.2d 830 (11th Cir. 1984) (predicting Florida law); *General Motors Corp. v. Edwards, supra*; *GMC v. Farnsworth*, 965 P.2d 1209 (Alaska 1998); *Czarnecki v. Volkswagen of America, supra*; *McGee v. Cessna Aircraft Co., supra*; *Polston v. Boomershine Pontiac-GMC Truck, Inc.*, 423 S.E.2d 659 (Ga. 1992); *Fouche v. Chrysler Motors Corp.*, 646 P.2d 1020 (Idaho Ct. App. 1982), *aff'd* 692 P.2d 345 (Idaho 1984); *Buehler v. Whalen*, 374 N.E.2d 460 (Ill. 1978); *Jackson v. Warrum*, 535 N.E.2d 1207 (Ind. Ct. App. 1989); *Lally v. Volkswagen Aktiengesellschaft*, 698 N.E.2d 28 (Mass. 1998); *General Motors Corp. v. Lahocki*, 398 A.2d 490 (Md. Ct. Spec. App. 1979), *rev'd on other grounds*, 410 A.2d 1039 (Md. 1980); *McDowell v. Kawasaki Motors Corp.*, 799 S.W.2d 854 (Mo. Ct. App. 1991); *Kudlacek v. Fiat, S.p.A.*, 509 N.W.2d 603 (Neb. 1994); *Trull v. Volkswagen of America, Inc., supra*; *Poliseno v. General Motors Corp., supra*; *Staas v. McAllister*, 2000 WL 262661 at *1 (Ohio Ct. App. March 10, 2000); *Lee v. Volkswagen of America, Inc.*, 688 P.2d 1283 (Okla. 1984); *May v. Portland Jeep, Inc.*, 509 P.2d 24 (Or. 1973); *Tracy v. Cotterell*, 524 S.E.2d 879 (W. Va. 1999); *Sumnicht v. Toyota Motor Sales, U.S.A., Inc.*, 360 N.W.2d 2 (Wisc. 1984); *Chrysler Corp. v. Todorovich*, 580 P.2d 1123 (Wyo. 1978).

(c) If proof does not support a determination under Subsection (b) of the harm that would have resulted in the absence of the product defect, the product seller is liable for all of the plaintiff's harm attributable to the defect and other causes.

* * *

Restatement (Third) Torts, § 16 (2000).

¶ 15 In contrast, the *Huddell/Caiazza*¹¹ approach requires a plaintiff to quantify the extent of his or her injuries that were caused by the defect and permits recovery from the manufacturer of the product that allegedly enhanced the injures only for the precise injuries caused by the defective product. *Huddell*, 537 F.2d at 738. This approach was first articulated by the United States Court of Appeals for the Third Circuit, predicting New

¹¹ See *Huddell, supra*, and *Caiazza v. Volkswagenwerk A.G.*, 647 F.2d 241 (2nd Cir. 1981) (predicting New York law). This approach has been followed or supported by at least one other circuit court predicting the law of two states and by the appellate courts of at least seven other states. See *Chretien v. General Motors Corp.*, 1992 U.S. App. LEXIS 6269 (4th Cir. 1992) (applying Virginia law); *Stonehocker v. General Motors Corp.*, 587 F.2d 151 (4th Cir. 1978) (predicting South Carolina law); *Mazda Motor Corp. v. Lindahl*, 706 A.2d 526 (Del. 1998); *Hillrichs v. Avco Corp., supra*; *Sumner v. General Motors Corp.*, 538 N.W.2d 112 (Mich. Ct. App. 1995), *overruled on other grounds*, *Lopez v. General Motors Corp.*, 569 N.W.2d 861 (Mich. Ct. App. 1997); *Duran v. General Motors Corporation*, 688 P.2d 779 (N.M. Ct. App. 1984), *overruled on other grounds*, *Brooks v. Beech Aircraft Corp.*, 902 P.2d 54 (N.M. 1995); *Garcia v. Rivera*, 553 N.Y.S.2d 378 (N.Y. App. Div. 1990); *Murphey v. Georgia Pacific Corp., supra*; *Couch v. Mine Safety Appliances, Co.*, 728 P.2d 585 (Wash. 1986).

Jersey law, in *Huddell*.¹² and has been followed by the Third Circuit and the district courts within Pennsylvania when predicting Pennsylvania law.¹³

¶ 16 After careful consideration, however, we conclude that the *Fox/Mitchell* approach toward allocation of the burden of proof in enhanced injury cases is more consistent with Pennsylvania tort law than the *Huddell/Caiazza* approach. The rationale behind the *Fox/Mitchell* approach is that:

This placement of the burden of proof is justified by considerations of fairness. If we were to impose upon an injured party the necessity of proving which impact in a chain collision did which harm, we would actually be expressing a judicial policy that it is better that a plaintiff, injured through no fault of his own, take nothing, than that a wrongdoer pay more than his theoretical share of the damages arising out of a situation which his wrong has helped to create. In other words, the rule is a result of a choice made as to where a loss due to failure of proof shall fall—on an innocent plaintiff or on defendants who are clearly proved to have been at fault.

Mitchell, 669 F.2d at 1208. The Supreme Court of New Hampshire found that its adoption of the *Fox/Mitchell* approach was:

supported by our treatment of products liability actions, where we have, based upon a “compelling reason of policy,” abandoned the higher burden of proof of negligence actions in lieu of adopting the less stringent burden of proof of strict liability. Our rationale has been that the plaintiff’s burden “had proven to be, and would continue to be, a practically impossible burden.”

¹² As discussed below, however, when eventually faced with this issue, the appellate courts of New Jersey adopted the *Fox/Mitchell* approach. *Poliseno, supra*.

¹³ See *Oddi v. Ford Motor Co.*, 234 F.3d 136 (3d Cir. 2000), cert. denied 2001 U.S. LEXIS 2208 (U.S. Mar. 19, 2001); *Dorsett v. American Isuzu Motor, Inc., supra*; *Craigie v. General Motor Corp., supra*.

Similar policy reasons compel us to allocate the burden of apportionment to the defendants once the plaintiffs prove causation.

Trull, 761 A.2d at 482 (citations omitted).

¶ 17 We agree with the reasoning set forth by the United States Court of Appeals for the Eighth Circuit in *Mitchell* and by the Supreme Court of New Hampshire in *Trull* and note that the appellate courts of this Commonwealth have adopted principles of strict liability, successor liability and joint and several liability in recognition of similar public policy concerns. *See, e.g., Walton v. Avco Corp.*, 530 Pa. 568, 576, 610 A.2d 454, 458 (1992) (“The exigencies of our complex technologies required the development and adoption of strict liability when it became clear that the circumstances behind some injuries would make negligence practically impossible for an injured plaintiff to prove.”); *Glomb v. Glomb*, 530 A.2d 1362, 1365 (Pa. Super. 1987) (en banc) (“A court can direct the apportionment of liability among distinct causes only when the injured party suffers distinct harms or when the court is able to identify ‘a reasonable basis for determining the contribution of each cause to a single harm.’”) (quoting Restatement (Second) of Torts, § 433A(1) (1965)).

¶ 18 Moreover, the *Fox/Mitchell* approach does not relieve a plaintiff of his or her burden of proving damages. *See Trull*, 761 A.2d at 483. Indeed, as the First Circuit explained in its opinion certifying the question of which

approach was to be followed in New Hampshire to the Supreme Court of New Hampshire in *Trull*:

[t]he Fox[/]Mitchell approach does not relieve a plaintiff of the threshold obligation of proving causation, and thus liability; it is only after a plaintiff has demonstrated that the design defect was a 'substantial factor' in producing damages over and above those that otherwise would have occurred that the burden shifts to the defendant to apportion damages.

Trull v. Volkswagen of America, Inc., 187 F.3d 88, 102 (1st Cir. 1999).

Accord Poliseno, 744 A.2d at 685 (plaintiff still must meet the threshold burden of proving that "the alleged defect was a substantial factor in increasing the harm beyond that which would have resulted from the first collision"). Meeting this threshold is sufficient to comply with the mandate that a plaintiff in this Commonwealth must prove the existence and amount of his or her damages with sufficient certainty.

¶ 19 As the Superior Court of New Jersey recently recognized, "[w]hich party has the burden of proof on [this] issue can be determinative of whether a plaintiff recovers damages in such cases." *Poliseno*, 744 A.2d at 685. Indeed, under the *Huddell* approach, "a plaintiff would be 'relegated to an almost hopeless state of never being able to succeed against a defective designer'", *Trull*, 761 A.2d at 482 (quoting *Mitchell*, 669 F.2d at 1204), because this approach requires a plaintiff to "prove a negative based on a hypothetical set of facts." *Tracy*, 524 S.E.2d at 893 n.12 (quoting *Oakes v. General Motors Corp.*, 628 N.E.2d 341 (Ill. App. 1994)).

¶ 20 For all of these reasons, we find that application of the *Fox/Mitchell* approach in the present case is more consistent with the law and public policy of this Commonwealth. We hold, therefore, that the trial court erred in instructing the jury that the Stechers bore the burden of quantifying the extent of the enhanced injuries caused by the alleged defect in the Ford vehicle. Accordingly, we vacate the judgment of the Court of Common Pleas of Lancaster County and remand this matter for a new trial.

¶ 21 Our decision to grant a new trial on this basis renders moot Ford's challenge to the trial court's denial of its motions for a compulsory nonsuit and directed verdict. This result also eliminates the necessity of our considering the Stechers' challenges to the trial court's failure to grant their requested instruction on concurrent causation. On retrial, the trial court will be called upon to fashion jury instructions that encompass the appropriate apportionment of the burden of proof under the *Fox/Mitchell* approach. Similarly, we decline to consider the parties' arguments regarding the admissibility of particular evidence and expert testimony. On retrial, if the Stechers meet their burden of proving by a preponderance of the evidence that a defect in the Ford vehicle was a substantial factor in increasing Mrs. Stecher's injuries, then the burden shifts to Ford to quantify the extent of those injuries caused by the alleged defect. We leave it to the trial court to determine whether particular evidence or testimony is relevant to either party's burden of proof on retrial under the *Fox/Mitchell* approach.

¶ 22 Accordingly, we vacate the judgment in favor of Ford and against the Stechers and remand this matter for further proceedings consistent with this Opinion.

¶ 23 Judgment vacated and case remanded. Jurisdiction relinquished.

¶ 24 Tamilya, J., files a Dissenting Opinion.

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Appeal from the Judgment in the Court of
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SHARON R. STECHER AND JOSEPH	:	
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	:	
FORD MOTOR COMPANY AND REED,	:	
INC., D/B/A REED CHEVROLET,	:	
PONTIAC, OLDSMOBILE,	:	
Appellee	:	No. 1667 MDA 1999

Appeal from the Judgment in the Court of
Common Pleas of Lancaster County,
Civil Division, at No. 549-94

BEFORE: JOHNSON, TODD and TAMILIA, JJ.

DISSENTING OPINION BY TAMILIA, J.:

¶ 1 The majority would vacate the judgment of the trial court in favor of Ford and against the Stechers and remand for a new trial. I dissent.

¶ 2 Sharon and Joseph Stecher (appellants/cross-appellees) and Ford Motor Company (appellee/cross-appellant) appeal the judgment entered in favor of Ford and against the Stechers.¹⁴

¶ 3 On February 13, 1992, Sharon Stecher was involved in a motor vehicle accident while operating her 1983 Ford LTD. The evidence indicates that inclement weather and resulting road conditions caused Sharon Stecher to lose control of the LTD. Thereafter, the vehicle was hit near-side by an oncoming 1992 GMC pickup truck. The evidence established that the front grill of the truck hit the driver's side of the LTD. As a result of the accident, Sharon Stecher sustained serious head injuries. Thereafter, the Stechers initiated a product liability action alleging the "B" pillar welds of the LTD were defectively manufactured, causing the "B" pillar to detach from the floor of the vehicle in the course of the accident and to strike Sharon Stecher in the head.¹⁵

¶ 4 Following an April 1999 trial, a jury found the vehicle's "B" pillar welds were defective but not a substantial factor in bringing about Sharon Stecher's injuries. These cross-appeals followed.

¶ 5 The Stechers present the following questions for our review:

1. Whether the trial court erred by instructing the jury that [the Stechers] were required to prove

¹⁴ It does not appear as if appellee, Reed Inc., is a party to the instant appeal.

¹⁵ It was Ford's position that Sharon Stecher's head did not hit the "B" pillar but rather hit the hood of the GMC pickup truck during the collision.

an enhanced injury attributable to the manufacturing defect?

2. Whether the trial court erred by refusing to instruct the jury on concurring causes based on the rationale that this case is a products liability action rather than a negligence action?
3. Whether the trial court erred by permitting [Ford's] experts to testify about the statistical analysis and accident frequency/severity studies where [Ford's] own experts acknowledge such information had no relevance to the specific issues in this case?
4. Whether the trial court erred in precluding [the Stechers'] expert's testimony without an evidentiary hearing?

(Stechers' corrected brief at 3.)

¶ 6 In its cross-appeal, Ford presents these challenges:

1. Plaintiffs in a crashworthiness case must present evidence that Plaintiff suffered enhanced injuries, above and beyond those plaintiff would have sustained absent a defect. [The Stechers] failed to present evidence that Mrs. Stecher suffered any enhanced injuries above and beyond those she would have sustained as a result of the initial collision. In light of [the Stechers'] failure to present required evidence, did the Trial Court properly deny Ford's motions for compulsory nonsuit and directed verdict?
2. In automobile collision cases, demonstrative evidence involving circumstances different from the accident is admissible if proffered to illustrate general principles of science, and not as an accident reconstruction. Here, Ford sought to introduce into evidence crash tests performed and analyzed by its expert to demonstrate general principles of how vehicles behave in near-side impact crashes. Because Ford sought to introduce the crash tests solely to demonstrate general principles, did

the Trial Court properly preclude Ford from introducing such evidence?

(Ford's brief at 7.)

¶ 7 I begin by addressing those challenges presented by the Stechers.

The Stechers argue this case presents an issue of first impression, that being, "whether a plaintiff in a 'crashworthiness' case must quantify the extent of enhanced injuries resulting from the defect or whether plaintiff need only prove the defect increased the harm." (Appellant's corrected brief at 13.)

¶ 8 In 1968, the doctrine of "crashworthiness" was first addressed by the Court of Appeals for the Eighth Circuit in *Larsen v. General Motors Corp.*, 391 F.2d 495 (8th Cir. 1968). In 1994, this Court addressed the issue of whether the doctrine of "crashworthiness" or "second collision" is a valid theory of recovery in a product liability action under Pennsylvania law in *Kupetz v. Deere & Co.*, 644 A.2d 1213 (Pa. Super. 1994), *appeal denied*, 539 Pa. 693, 653 A.2d 1232 (1994).

¶ 9 "The term crashworthiness means the protection that a motor vehicle affords its passenger against personal injury or death as a result of a motor vehicle accident." *Id.* at 1218, *citing Barris v. Bob's Drag Chutes & Safety Equipment, Inc.*, 685 F.2d 94 (3d Cir. Pa. 1982). "The principle behind the 'second collision' concept is that, because of the way the vehicle has been manufactured, a person's injuries have been aggravated

unnecessarily." *Id.*, citing *Jeng v. Witters*, 452 F. Supp. 1349 (M.D. Pa. 1978).

¶ 10 In *Kupetz*, this Court determined the crashworthiness/second collision doctrine has been a viable theory of liability since the Pennsylvania Supreme Court's decision in *McCown v. International Harvester Co.*, 463 Pa. 13, 342 A.2d 381 (1975). In *McCown*, the Supreme Court held contributory negligence is not a defense in a product liability case. Without describing it as such, however, the Court was reviewing this issue in a product liability case predicated upon the crashworthiness/second collision doctrine. Accordingly, in *Kupetz*, this Court concluded the crashworthiness/second collision doctrine, as a subset of a cause of action for product liability under Section 402A of the Restatement of Torts Second, is a viable product liability theory in Pennsylvania. *Id.* at 1219.

¶ 11 The Stechers' argument focuses upon the fact that there is no Pennsylvania case law establishing the level and burden of proof to be applied under the crashworthiness/second collision doctrine. Ford disagrees, citing *Schroeder v. DOT*, 551 Pa. 243, 710 A.2d 23 (1998). In *Schroeder*, the Pennsylvania Supreme Court addressed the issues of spoliation of evidence in a product liability case. In discussing the extent to which the defendants were prejudiced by the spoliation of evidence in the case, the Court footnoted the following:

Specifically, [the plaintiff] alleges that the truck was not crashworthy. Under this theory, she must prove (1) that the

design of the vehicle was defective and that when the design was made, an alternative, safer, practicable design existed; (2) what injuries, if any, the plaintiff would have received had the alternative safer design been used; and (3) **what injuries were attributable to the defective design**. *Kupetz v. Deere & Co., Inc.*, 435 Pa. Super. 16, 27, 644 A.2d 1213, 1218 (1994).

Schroeder, supra at 252 n. 8, 710 A.2d at 28 n. 8 (emphasis added).

¶ 12 As the Court in *Schroeder* cited *Kupetz* for its standard, we must look to the history behind the standard as set forth in *Kupetz*. In *Kupetz*, where neither causation nor damages were at issue on appeal,¹⁶ this Court cited the standard enunciated by the United States District Court for the Eastern District of Pennsylvania in *Dorsett v. American Isuzu Motors, Inc.*, 805 F. Supp. 1212 (E.D. Pa. 1992), and *Craigie v. General Motors Corp.*, 740 F. Supp. 353 (E.D. Pa. 1990), which both adopted the approach set forth in *Huddell v. Levin*, 537 F.2d 726 (3d Cir. N.J. 1976).

¶ 13 I agree with the Stechers' position that the issue of whether a plaintiff

¹⁶ In *Kupetz v. Deere & Co.*, 644 A.2d 1213 (Pa. Super. 1994), *appeal denied*, 539 Pa. 693, 653 A.2d 1232 (1994), this Court addressed the following issues: (1) whether the doctrine of crashworthiness/second collision is a valid theory of recovery in a product liability action under Pennsylvania law; and (2) whether assumption of the risk is a complete defense in such an action.

in a crashworthiness/second collision case must quantify the extent of enhanced injuries resulting from the defect or whether a plaintiff need only prove the defect increased the harm, has not been specifically addressed by the courts of this Commonwealth.

¶ 14 Similarly, in 1999, the United States District Court of Appeals for the First Circuit found there was no controlling state law precedent on this issue and granted the plaintiffs' motion to certify the issue to the New Hampshire Supreme Court. *Trull v. Volkswagen of Am., Inc.*, 187 F.3d 88 (1st Cir. N.H. 1999). In so doing, the First Circuit provided the following thorough analysis of the two recognized approaches to this issue:

The minority view, . . . , places the burden on the plaintiff to prove the nature and extent of his enhanced injuries. This so-called Huddell/Caiazzo approach, derived from *Huddell v. Levin*, 537 F.2d 726, 737-38 (3d Cir. 1976) (New Jersey law), and *Caiazzo v. Volkswagenwerk, A.G.*, 647 F.2d 241, 250 (2d Cir. 1981) (New York law), requires a plaintiff to prove three things: (1) that an alternative, safer design would have been practicable under the circumstances; (2) the injuries, if any, that would have resulted if the alternative design had been used; (3) the extent of enhanced injuries attributable to the defective design. See, e.g., *Huddell*, 537 F.2d at 737-38. The latter two elements are, of course, corollaries, both in essence requiring the plaintiff to sort out which injuries would not have occurred, and which injuries (including additional ones) would have occurred, had there been no defect.

. . .

See *Caiazza*, 647 F.2d at 251. ⁿ¹²

ⁿ¹² The *Caiazza* court explained its rule as follows:

We realize that a plaintiff's burden of offering evidence of what injuries would have resulted absent the alleged defect will be heavy in some instances and perhaps impossible in others. Where it is impossible, however, the plaintiff has merely failed to establish his prima facie case, i.e., that it is more probable than not that the alleged defect aggravated or enhanced the injuries resulting from the initial collision. Moreover, in those instances in which the plaintiff cannot offer any evidence as to what would have occurred but for the alleged defect, the plaintiff has not established the fact of enhancement at all.

647 F.2d at 251.

. . .

The more widely used Fox-Mitchell approach, derived from *Fox v. Ford Motor Co.*, 575 F.2d 774, 787-88 (10th Cir. 1978) (Wyoming law), and *Mitchell v. Volkswagenwerk, A.G.*, 669 F.2d 1199, 1206-1208 (8th Cir. 1982) (Minnesota law), requires a plaintiff to prove only that the design defect was a "substantial factor in producing damages over and above those which were probably caused as a result of the original impact or collision," see *Mitchell*, 669 F.2d at 1206. Once the plaintiff makes that showing, the burden shifts to the defendant to show which injuries were attributable to the initial collision and which to the defect. Under this line of cases, a manufacturer who fails to make such an allocation is held liable for all of the plaintiff's injury. Thus, in cases where the injury is "indivisible" - such as, for example, certain instances of paraplegia or death -

manufacturers are treated as joint tortfeasors for all injuries. See *id.*ⁿ¹³

ⁿ¹³ Under this approach, the court initially decides whether an injury is indivisible. If the court finds that it is, the jury is instructed to determine only whether the negligent design of the manufacturer was a substantial factor in producing that injury. If the jury makes such a finding, the manufacturer is held jointly and severally liable for the damages. See *Mitchell v. Volkswagenwerk, A.G.*, 669 F.2d 1199, 1209-1210 (8th Cir. 1982). If the court finds that the injury is divisible, the jury must apportion the damages appropriately.

Trull, supra at 101-102 (1st Cir. N.H. 1999).

¶ 15 Upon careful examination and evaluation of these approaches, I find the trial court properly applied the Huddell/Caiazzo approach, which places the burden on the plaintiff to prove the nature and extent of the enhanced injuries, for this approach most accurately reflects the jurisprudence in Pennsylvania with respect to liability and damages. As stated in *Huddell, supra*, "the plaintiff must offer some method of establishing the extent of enhanced injuries attributable to the defective design [or manufacturing]."

Id. at 737.

[The plaintiff has the] duty to establish by evidence such facts as would furnish a basis for the legal assessment of damages according to some definite and legal rule. Our law requires not merely conjecture, but rather sufficient data from which damages can be assessed with reasonable certainty. While we do not require mathematical exactness, we cannot award damages by guess or speculation. There must be before us a reasonably fair basis for calculation.

Cronan v. Castle Gas Co., 512 A.2d 1, 5 (Pa. Super. 1986), *citing Gordon v. Trovato*, 338 A.2d 653 (Pa. Super. 1975); *Macan v. Scandinavia Belting Company*, 264 Pa. 384, 107 A. 750 (1919); *Pratt v. Stein*, 444 A.2d 674 (Pa. Super. 1982); and *Kaczkowski v. Bolubasz*, 491 Pa. 561, 421 A.2d 1027 (1980).

¶ 16 Furthermore, review of the case law makes clear that, for purposes of causation and damages, there is no difference between the burden and standard of proof in design defect and manufacturing defect cases. Liability for manufacturing defects involves discrepancies between the nature and quality of a product intended by the manufacturer and the product as produced, where liability for design defects involves discrepancies between the design of a product causing injury and an alternative specification that would have avoided the injury. *See Leeds v. Cincinnati, Inc.*, 732 F.2d 1194, 1197 (3d Cir. N.J. 1984). There is no distinction, however, between the elements of causation and damages in a design defect case as opposed to those in a manufacturing defect case.

¶ 17 The majority, in adopting the more prevalent *Fox/Mitchell* view, rather than that which has clearly been adopted in Pennsylvania, would alter the concept of an even playing field and shift to the defendant the duty of disproving unsubstantiated allegations, the proof of a negative, and in failing to do so, assess full liability on the defendant. In other words, the *Fox/Mitchell* approach shifts the burden of proof to the defendants to

establish which injuries were attributable to the defect once the plaintiff proves the defect was a substantial factor in producing the injuries. In this case, however, Ford established to the satisfaction of a jury and the court that the manufacturer defect, if any, occurred at the floor of the LTD and not the roof, and the concept of enhanced injury as presented by the Stechers did not occur. As expressed in this Dissenting Opinion, this became a question which properly was resolved by the jury. The jury found the defect in the "B" pillar was not a substantial factor in bringing about the injuries to Mrs. Stecher. The jury's verdict merely reflects its determination that the Stechers failed to make out a prima facie case of a manufacturing defect.

¶ 18 Even under the majority's view, the Stechers cannot prevail because no evidence was presented that the manufacturer defect, that is the separation at the floor, in any way produced the alleged enhanced injury which was totally dependent upon separation at the roof. It is not any manufacturer's defect which can call into play, even under the most liberal approach, the *Fox/Mitchell* analysis. As acknowledged by the majority, the plaintiff in such an action need prove "only that defect which was a substantial factor in producing damages over and above those which were probably caused as a result of the original impact or collision." (Majority Opinion at 8.) The majority is introducing a change in the law of Pennsylvania based on concepts which are not applicable to this case and upon facts which are contrary to those established at trial and as found by

the jury. The majority ignores the ancient and time-honored dictum that allegations must be followed by proof.¹⁷

¶ 19 The Stechers also argue the trial court should have instructed the jury on concurring causes in accordance with Pennsylvania Suggested Standard Civil Jury Instruction § 6.30 **Concurring Causes**, and *Lilley v. Johns-Manville Corp.*, 596 A.2d 203 (Pa. Super. 1991), *appeal denied*, 530 Pa. 644, 607 A.2d 254 (1992). In *Lilley*, this Court stated:

When negligent conduct of two or more persons contributes concurrently to an occurrence or incident, each of these persons is fully responsible for the harm suffered by the plaintiff regardless of the relative extent to which each contributed to the harm. A cause is concurrent if it was operative at the moment of the incident, and acted with another cause as a substantial contributive factor in bringing about the harm.

Pa. SSJI Civ. 3.26 Concurring Causes (Subcommittee Draft 1978). While this section applies to the negligent conduct of two or more persons, its reasoning applies just as forcibly to the defective products of two or more manufacturers.

Id. at 215-216.

¶ 20 This instruction, according to the Stechers, would have enabled the jury to conclude the defective “B” pillar and the force or size of the truck were both substantial causes in producing Sharon Stecher’s injuries.

¹⁷The majority declines to address the remaining issues due to the fact they are remanding for a new trial.

We review a challenge to a jury instruction to determine if the trial court abused its discretion or committed an error of law. We will not grant a new trial because of an erroneous jury instruction unless the jury charge in its entirety was unclear, inadequate, or tended to mislead or confuse the jury. Even if a trial court has refused to give a proposed instruction that contained a correct statement of the law, we will not grant a new trial on the basis thereof if the substance of that instruction was covered by the trial court's charge as a whole.

Fragale v. Brigham, 741 A.2d 788, 790 (Pa. Super. 1999), *appeal denied* 2000 Pa. LEXIS 1036 (Pa. Apr. 27, 2000), *quoting Southard v. Temple University Hospital*, 731 A.2d 603, 616 (Pa. Super. 1999). I agree with the trial court's determination that the Stechers' proposed instruction (an edited version of Pa. SSJI Civ. § 6.30) would have been inappropriate under the facts of this crashworthiness case.

[Ford] is liable for the injuries which resulted from the impact with the B Pillar. However, it is not liable for the injuries which resulted from the initial impact with the truck.^[18] Therefore, *there can be only one cause of the enhanced injuries*, which is the defect in the product, and a concurring cause instruction is inconsistent with the enhanced injury concept. Accordingly, we believe that a concurring cause instruction would have confused the jury

(Trial Court Opinion, Georgelis, J., 9/20/99, at 10; emphasis added.)

¶ 21 The Stechers also argue the trial court erred by permitting Ford's experts to testify about the statistical analysis and accident

¹⁸ The trial court is referring to the 1992 GMC pickup truck, which collided with the LTD.

frequency/severity studies. The Stechers claim Ford introduced negligence concepts to the jury which are not relevant to a products liability action.

A trial judge has broad powers concerning the conduct of trial, particularly with regard to the admission or exclusion of evidence. The admission or exclusion of evidence is within the sound discretion of the trial judge, and may be reversed only where there was a clear abuse of discretion. The fundamental consideration in reviewing the trial court's decision regarding the admission of evidence is its relevance. Evidence is relevant if it tends to make a fact at issue more or less probable.

Santarlas v. Leaseway Motorcar Transp. Co., 689 A.2d 311, 313-14 (Pa. Super. 1997) (citations omitted).

¶ 22 In this case, Ford's experts, Drs. Roberts and Vogler, testified about the statistical frequency/severity studies, which demonstrated the range of injuries likely to be suffered by any driver in a near-side impact collision, regardless of a defect in the welding of the automobile. Based on their analysis, the experts revealed the severe and life-threatening injuries Sharon Stecher would have suffered from the collision in the absence of the alleged defective welding.

¶ 23 In its Opinion, the trial court stated:

The defense at trial, in part, was that, regardless of any defect in the B Pillar, Mrs. Stecher would have been severely injured. Evidence based upon prior near side collisions was the only way for the Defendant to introduce this defense. Therefore, this evidence had a tendency to make the existence of a material fact more probable than it would be without it.

(Trial Court Opinion at 11-12.)

¶ 24 I agree with the trial court and conclude the expert testimony was offered to explain the injuries attributable to a near-side collision and, thus, was relevant to the doctrine of enhanced injury. I find this evidence was crucial to the jury's determination of whether the Stechers proved the nature and extent of the enhanced injuries. As previously discussed, the Stechers were required to prove what injuries were attributable to the alleged defective welding fabrication of the "B" pillar. Ford introduced the expert testimony to demonstrate that the alleged defective welding did not enhance Sharon Stecher's injuries. The testimony revealed which injuries would have occurred had there been no defect. In light of the record, therefore, I do not believe the trial court abused its discretion by admitting the testimony of Ford's experts.

¶ 25 The Stechers also contend the trial court erred by precluding the testimony of their expert, Dr. Kenneth Saczalski, without conducting an evidentiary hearing. Ford objected to the introduction of Dr. Saczalski's testimony concerning a computer simulation program, known as Dynaman, which depicted Sharon Stecher's movement within her vehicle at the time of the accident. The trial court determined the simulation was inadmissible and granted Ford's motion *in limine* without a hearing. The Stechers claim the court was required to conduct a hearing pursuant to *Frye v. United States*, 54 App. D.C. 46, 293 F. 1013 (D.C. 1923), to determine whether the evidence was scientifically reliable.

¶ 26 In its Opinion, the trial court found the Stechers' argument waived for their failure to object or to make an offer of proof prior to trial and in response to Ford's motion *in limine* to preclude evidence of the simulation program. Pennsylvania Rule of Civil Procedure 227.1, **Post-Trial Relief**, (b) provides:

Post-Trial relief may not be granted unless the grounds therefor,

(1) if then available, were raised in pre-trial proceedings or by motion, objection, point for charge, request for findings of fact or conclusions of law, offer of proof or other appropriate method at trial; and

(2) are specified in the motion. The motion shall state how the grounds were asserted in pre-trial proceedings or at trial. Grounds not specified are deemed waived unless leave is granted upon cause shown to specify additional grounds.

Pa.R.C.P. 227.1 (b).

¶ 27 In light of the record, I believe it is clear the Stechers did not preserve this issue for our review due to their failure to make a timely objection to the court's exclusion of the evidence concerning the Dynamane simulation. **See** Pa.R.C.P. 227.1 Explanatory Comment - 1983. **See also Dilliaine v. Lehigh Valley Trust Co.**, 457 Pa. 255, 322 A.2d 114 (1974) (ground for new trial must be raised timely in pre-trial proceeding or during trial to afford the court the opportunity to correct the error). In response to Ford's motion *in limine* to preclude evidence of the Dynamane simulations, the Stechers merely asserted that Dr. Saczalski's analysis and use of the

simulation would be based on well recognized scientific principles relied upon by automotive engineers and biomechanics. The Stechers failed to make an offer of proof or an additional attempt to demonstrate what the scientific testimony established. After the trial court granted Ford's motion, the Stechers did not request reconsideration of the court's ruling and made no further objection to the preclusion of the evidence. Following the trial, the Stechers filed a motion for modification of the record, which the trial court granted and, thus, Dr. Saczalski's report and computer simulation is included in the certified record to this Court. Because the Stechers did not comply with the mandates of Rule 227.1, the trial court did not have the opportunity to correct the alleged error and, thus, I would find the issue is waived for purposes of review.

¶ 28 Even if the Stechers' issue was not waived pursuant to Rule 227.1, their argument is without merit. Our law is well established that the trial court has broad discretion in admitting or excluding evidence. ***Blum by Blum v. Merrell Dow Pharms.***, 705 A.2d 1314 (Pa. Super. 1997). Before scientifically adduced evidence may be considered admissible, however, the ***Blum*** court determined the evidence must first meet the standard established in ***Frye, supra***.

The *Frye* test represents an attempt to measure the quality of scientific evidence prior to admission, so that jurors are not misled by unreliable evidence. Our courts have considered this to be necessary whenever science enters the courtroom, because there is the danger that the trial judge or jury will

ascribe a degree of certainty to the testimony of the expert ... which may not be deserved. Therefore, because scientific testimony should aid jurors rather than mislead them, admissibility of scientific evidence depends upon the general acceptance of its validity by those scientists active in the field to which the evidence belongs.

Blum, 705 A.2d at 1317 (internal quotations and citations omitted). The court, acting as the gatekeeper, must determine whether the science is good enough to serve as the basis for the jury's findings of fact, or is dressed up to look good enough, but is so untrustworthy that no finding of fact can properly be based upon it. *Id.* at 1322.

¶ 29 In this case, I would conclude the trial court did not abuse its discretion in granting Ford's motion to preclude the evidence without conducting a hearing. The court reviewed the Dynamane simulation, the expert reports and the briefs submitted by the parties before considering the admissibility of the proffered evidence. In its Opinion, the court found the parties submitted the necessary information from which it could determine whether the evidence met the standard for admissibility set forth in *Frye*. As such, the court was not required to conduct an evidentiary hearing. The court indicated the Stechers did not lay an adequate foundation from which the Dynamane simulation could be admitted under *Frye*. The Stechers, however, were not prohibited from questioning Dr. Saczalski at trial regarding the movement of Sharon Stecher in her vehicle. I would find no

abuse of discretion by the trial court in excluding the Dynamman simulation evidence without a hearing.

¶ 30 Turning to those issues presented by Ford in its cross-appeal, initially, Ford argues that, in light of the fact the Stechers failed to present evidence that Sharon Stecher suffered any enhanced injuries above and beyond those she would have sustained as a result of the initial collision, Ford's motions for compulsory nonsuit and directed verdict should have been granted.

A compulsory nonsuit can only be granted in cases where it is clear that a cause of action has not been established and the plaintiff must be given the benefit of all favorable evidence along with all reasonable inferences of fact arising from that evidence, resolving any conflict in favor of the plaintiff.

Matthews v. Unisource Worldwide, Inc., 748 A.2d 219, 221 (Pa. Super. 2000), *appeal denied* 2000 Pa. LEXIS 1961 (Pa. Aug. 11, 2000), *quoting Joyce v. Boulevard Physical Therapy & Rehabilitation Ctr., P.C.*, 694 A.2d 648, 652-53 (Pa. Super. 1997).

A motion for a directed verdict admits as true all facts and proper inferences from testimony which tend to support the opposing party's case, and rejects all testimony and inferences to the contrary. Such a motion can properly be granted by a court only if the facts are clear and free from doubt. On a motion for directed verdict, the trial court must consider the facts in the light most favorable to the party against whom the motion is being made. It is not within the province of the trial court to weigh conflicting evidence when ruling upon a motion for directed verdict as credibility is a jury question.

Lonasco v. A-Best Prods. Co., 757 A.2d 367, **16 (Pa. Super. 2000; internal quotation and citation omitted).

¶ 31 Upon careful and independent review of the trial transcripts, I find no abuse of discretion with respect to the denial of these motions. The theory the Stechers presented to the jury is summarized in their brief as follows:

If the "B" pillar remains attached to the car, the force impacting the occupant's head is significantly less than if the "B" pillar swings freely into the car. An easy way to appreciate this law of physics is to consider a baseball hitting a bat. If the bat is held stationary in front of the ball for a bunt, the ball drops to the ground in front of home plate. If the bat is swung with force, the ball is driven into the field. The higher the velocity of the pitched ball and swung bat, the greater the distance the ball travels. Similarly, if the welds had held, the "B" pillar would not have swung into Sharon's head with increasing velocity. Accordingly, had the welds not been defective, the contact between the "B" pillar and Sharon's head would have been more like a bunt than a home run.

Sharon suffered an AIS Grade 5 (AIS Scale runs from 1 to 6, with 6 being unsurvivable) brain injury, which is specifically known as diffuse axonal injury ("DAI"). DAI means that the axons throughout the brain have been torn apart by angular acceleration. Angular acceleration is best exemplified by use of a water-filled "snow globe." When the snow globe is struck on the side without any angle, the material inside will not float around. If, however, the globe is angulated and then impacted, the snowy material will swirl around. Similarly, the greater the angular acceleration, the greater the brain damage. As the angular acceleration decreases, the level of AIS level [sic] decreases. Accordingly, if the "B" pillar had not swung freely like a baseball bat into Sharon's head, her brain damage would not be as severe.

(Appellants corrected brief at 7-8; internal footnotes omitted.)

¶ 32 In support of this theory, the Stechers presented the testimony of a variety of lay and expert witnesses. In particular, and with specific reference to the cause of the accident, the Stechers presented the expert testimony of Dr. Herbert Hill, who explained to the jury that this was not a high impact collision. Additionally, Dr. Campbell Laird testified specifically as to how a "B" pillar, functioning as appellants theorize that it did, would enhance the injuries of an occupant. Tina Hauck, a member of the rescue response team, testified as to her observations of the physical condition of the LTD in comparison with the severity of Sharon Stecher's injuries. The Stechers also presented the testimony of Dr. Ayub Ommaya, who testified that the severity of Sharon Stecher's brain injuries is the result of the speed at which the "B" pillar struck her head. It was Dr. Ommaya's opinion that the injuries would have been less severe had the "B" pillar struck Sharon Stecher at a lesser speed (T.T., Vol. 6, at 923-924).

¶ 33 Ford proposed a different yet equally viable theory of the accident based upon the fact that the "B" pillar was not detached at the top, but rather at the bottom weld. Ford presented evidence that the pillar did not follow the path of impact of a baseball bat hitting a ball, as appellants allege, and, in fact, never struck appellant. Rather, it was Ford's position at trial that there was no "second collision" and that Sharon Stecher's injury was the result of the initial collision occasioned by her head striking the broad

flat sheet metal of the truck's hood as it penetrated the window area during the initial collision.

¶ 34 It is well settled that the ultimate determination as to credibility and weight of the evidence lies with the fact finder. "Questions of credibility and conflicts in evidence are for the fact-finder to resolve." *Ratti v. Wheeling Pittsburgh Steel Corp.*, 2000 Pa. Super. LEXIS 2107, **8 (Pa. Super. 2000). Moreover, in reviewing a motion for nonsuit, "[t]he trial court must not consider issues of credibility and weight of the evidence." *Ravin, Inc. v. First City Co.*, 692 A.2d 577, 581 (Pa. Super. 1997).

¶ 35 Upon review of the evidence presented at trial, I find ample areas which required a fact finder's determination as to the weight of the evidence and the credibility of the witnesses. It is clear, therefore, the trial court acted appropriately in denying Ford's motions and in allowing the case to proceed to the jury.

¶ 36 Finally, Ford argues the trial court erred in precluding the demonstrative evidence of near-side impact crashes. Specifically, Ford claims the videotape crash tests were offered merely to illustrate general principles of science, and not to reconstruct the circumstances of the accident in which Sharon Stecher was involved.

¶ 37 "Generally, demonstrative evidence is admissible if its probative value outweighs the likelihood of improperly influencing the jury." *Pascale v. Hechinger Co.*, 627 A.2d 750, 755 (Pa. Super. 1993) (citations omitted).

The conditions of the demonstration must be sufficiently close to those involved in the accident to make the probative value outweigh the likely prejudicial effect. *Id.* In this case, Ford attempted to introduce videotape demonstrations of crash tests in which near-side impact collisions were recreated to indicate how vehicles function under such conditions. Ford cites *Jackson v. Spagnola*, 503 A.2d 944 (Pa. Super. 1985), *appeal denied*, 514 Pa. 643, 523 A.2d 1132 (1987), to support its contention that the videotapes were admissible because they were not introduced as recreations of Sharon Stecher's accident. In *Jackson*, the plaintiff was injured in a multi-vehicle accident. A products liability action was initiated against Volkswagen, wherein the plaintiff claimed the faulty design of the seats caused her injuries. At trial, Volkswagen was permitted to introduce crash test films in which the operation of automobile seat belts was tested during rear end collisions. The jury returned a verdict against the plaintiff and, on appeal, the plaintiff claimed the trial court erred in admitting the crash test films. Based upon the trial court's analysis of the films, this Court concluded the trial court did not abuse its discretion and that the films were properly admitted.

¶ 38 It is clear *Jackson* differs from the case at hand. In this case, the trial court found the videotapes inadmissible because the likelihood of

improperly influencing the jury outweighed the probative value of the crash tests.¹⁹

The tapes simply could not re-create the conditions of the accident. In the tapes, there were a number of dissimilarities from the actual crash. Steve Syson, [an appellants'] expert, detailed 33 instances where the tapes were dissimilar to the actual accident. Ultimately, the Trial Court decided that, if the jury were to view the tapes, even with a limiting instruction, it was likely that the jury would decide the case based solely upon the tapes, which is an improper basis for making a decision. We conclude the tapes' prejudicial value outweighed their probative value

(Trial Court Opinion at 17-18.)

¶ 39 I agree and would find no abuse of discretion by the trial court in precluding the admission of the videotape crash tests. In this case, the prejudicial and cumulative effect of the dissimilarities between the videotapes and the accident outweighed the probative value of the crash tests. Furthermore, Ford produced expert testimony, through Dr. John Habberstad, addressing the performance of vehicles in near-side impact

¹⁹ Having reviewed the two crash tests tapes submitted by Ford, the first created December 8, 1998, the second January 13, 1999, and the accompanying documentation, I agree the trial court properly denied their admission after viewing the tapes and data as they purport to establish near side crashes in the few seconds of the collision between the GMC vehicle and the LTD Ford. I agree with the trial court that, at best, this was a thinly veiled attempt to admit Ford's theory of the actual collision under the guise of an illustration of general principles of science. As such, the Ford tapes had no greater validity as objective evidence than the Dynamaman simulation proposed by Stecher. I agree with the trial court the impact of the tapes would be such as to influence the jury to decide on the basis of the tapes despite limiting instructions by the court.

J. A35029/00

collisions and, thus, the exclusion of the videotapes was not harmful to the defense. Accordingly, I do not believe Ford is entitled to relief on this claim.

¶ 40 I would affirm the judgment of the trial court.