

SUPREME COURT OF TEXAS

Kia Motors Corp. v. Ruiz

432 S.W.3d 865 (Tex. 2014) · Decided March 28, 2014

OPINION

LEHRMANN, J.

Justice LEHRMANN delivered the opinion of the Court. This products-liability case against a vehicle manufacturer, involving the failure of a driver's-side frontal air bag to deploy during a collision, presents several issues for review.

We first consider the applicability of section 82.008 of the Texas Civil Practice and Remedies Code, which establishes a rebuttable presumption that a manufacturer is not liable on a design-defect theory for a claimant's injuries if the product complies with certain applicable federal safety standards.

Second, we consider a legal-sufficiency challenge to the evidence supporting the jury's design-defect finding. Finally, we consider whether the trial court erred in admitting a spreadsheet summarizing authorized warranty claims involving air bags in similarly designed vehicles from the same manufacturer.

In affirming the trial court's judgment against the manufacturer, the court of appeals held that the nonli-ability presumption did not apply, that the evidence was legally sufficient to support the design-defect finding, and that the trial court's error in admitting the spreadsheet, if any, was waived or harmless.

We agree with the court of appeals on the first two issues, but diverge on the evidentiary question. We hold that the trial court erred in admitting the spreadsheet, that the manufacturer preserved the error, and that the error was harmful.

Accordingly, we remand for a new trial. I. Background Andrea and Lawrence Ruiz owned a 2002 Kia Spectra. On January 16, 2006, Andrea was driving the Spectra, and her daughter Suzanna was in the front passenger seat. Both were wearing seat belts. They were involved in a head-on collision with a pickup truck driven by Harvey Tomlin. Suzanna's air bag deployed, and she suffered minor injuries.

Andrea's did not, and she died at the scene from two dislocated vertebrae in her neck caused by a severe front-to-back head movement.¹ The Ruiz family² sued Kia Motors Corporation and Kia Motors America, Inc. (collectively, Kia), alleging in part that the defectively designed air-bag

system in the *8692002 Spectra resulted in the driver's-side air bag's failure to deploy during the collision.

The Ruizes also brought a negligence claim against Tomlin, with whom they settled before trial. The Ruizes and Kia proceeded to a jury trial on the negligent-design claim,³ which was premised on the theory that defective wiring connectors in the air-bag system created an open circuit that prevented the air bag from deploying.

The jury found that (1) Kia negligently designed the vehicle's air-bag system, which was a proximate cause of Andrea's injury, (2) Tomlin's negligence was a proximate cause of Andrea's injury, (3) the negligence, if any, of Lawrence Ruiz was not a proximate cause of Andrea's injury,⁴ and (4) Kia was grossly negligent.

The jury apportioned forty-five percent of the responsibility for the injury to Kia and fifty-five percent of the responsibility to Tomlin. The jury awarded the Ruizes \$1,972,000 in compensatory damages and \$2,500,000 in exemplary damages. Kia filed a motion for judgment notwithstanding the verdict, which the trial court denied. But the court disregarded the jury's gross-negligence and punitive-damages findings because the jury was not unanimous in finding Kia negligent.

In its final judgment on the verdict, the trial court reduced the amount of actual damages recoverable from Kia by its percentage of responsibility and awarded the Ruizes \$887,400 in damages, plus costs and pre- and post-judgment interest.

The court of appeals affirmed, 348 S.W.3d 465, and we granted Kia's petition for review. II. Statutory Presumption Kia's first issue requires us to interpret section 82.008 of the Texas Civil Practice and Remedies Code.

We review questions of statutory construction de novo. *Molinet v. Kimbrell*, 356 S.W.3d 407, 411 (Tex.2011). Our fundamental objective in interpreting a statute is "to determine and give effect to the Legislature's intent." *Am. Zurich Ins. Co. v. Samudio*, 370 S.W.3d 363, 368 (Tex.2012). "The plain language of a statute is the surest guide to the Legislature's intent." *Prairie View A & M Univ. v. Chatha*, 381 S.W.3d 500, 507 (Tex.2012).

Section 82.008 was enacted in 2003 as part of House Bill 4, a comprehensive tort-reform bill. See Act of June 2, 2003, 78th Leg., R.S., ch. 204, § 5.02, 2003 Tex. Gen. Laws 847, 861-62. The impetus for enacting section 82.008 was a finding that manufacturers and sellers were being held liable in products liability cases even though the products at issue complied with all applicable federal safety standards.

See R. Brent Cooper and Diana L. Faust, *Products Liability After House Bill 4*, 46 S. Tex. L.Rev. 1159, 1162 (2005). The provision states in pertinent part: (a) In a products liability action brought against a product manufacturer or seller, there is a rebuttable presumption that the product

manufacturer or seller is not liable for any injury to a claimant caused by some aspect of the formulation, labeling, or design of a product if the product manufacturer or seller establishes that the product's formula, labeling, or design complied with mandatory safety standards or regulations adopted and promulgated by the federal government, or an agency of the federal *870government, that were applicable to the product at the time of manufacture and that governed the product risk that allegedly caused harm.

Tex. Civ. Prac. & Rem.Code § 82.008(a). Put more simply in the context of this case, a manufacturer is entitled to a presumption of nonliability for its product's design if the manufacturer establishes that (1) the product complied with mandatory federal safety standards or regulations, (2) the standards or regulations were applicable to the product at the time of manufacture, and (3) the standards or regulations governed the product risk that allegedly caused the harm.⁵ Id. The claimant may rebut this presumption by establishing that "the mandatory federal safety standards or regulations applicable to the product were inadequate to protect the public from unreasonable risks of injury or damage." Id. § 82.008(b)(1).

The "mandatory safety standards" that allegedly gave rise to a nonliability presumption in this case are the Federal Motor Vehicle Safety Standards (FMVSS). See generally 49 C.F.R. §§ 571.101-.500. These standards were prescribed under the National Traffic and Motor Vehicle Safety Act of 1966, as amended. Pub.L. 89-568, § 1, 80 Stat. 718 (1966) (current version at 49 U.S.C. §§ 30101-30170).⁶ With certain exceptions not at issue here, the Safety Act generally precludes the sale of a motor vehicle that does not comply with applicable safety standards like the FMVSS.

49 U.S.C. § 30112(a)(1). The particular standard at issue is FMVSS 208, which specifies certain "performance requirements for the protection of vehicle occupants in crashes." 49 C.F.R. § 571.208, S 1 (2001). The regulation's stated purpose is "to reduce the number of deaths of vehicle occupants, and the severity of injuries, by specifying vehicle crashworthiness requirements in terms of forces and accelerations measured on anthropomorphic dummies in test crashes, and by specifying equipment requirements for active and passive restraint systems." Id. § 571.208, S2.

As is relevant to this case, FMVSS 208 requires vehicles manufactured on or after September 1, 1997, to have front driver's-side and passenger's-side air bags. See id. § 571.208, S4.1.5.1(a)(l), S4.1.5.3. Compliance with FMVSS 208 is determined by measuring, pursuant to various injury criteria, the protection provided by the air bags to dummy occupants of the vehicle during a crash test.

See id. § 571.208, S5.1, S6.7 Kia contends that the trial court erred in refusing to apply the statutory presumption of nonliability because the design of the 2002 Spectra's air bag system complied with FMVSS 208, a "mandatory safety standard" that, according to Kia, was "applicable

to the product at the time of manufacture and that governed the product *871risk that allegedly caused harm.” Tex. Civ.

Prac. & Rem.Code § 82.008(a). Rejecting this argument, the court of appeals first noted that FMVSS 208 contains standards governing the required equipment’s performance, not its design details. 348 S.W.3d at 472-73. Recognizing that the 2002 Spectra complied with FMVSS 208, the court of appeals nevertheless concluded: There is no allegation that the injury results from Kia failing the forces and acceleration tests or because it did not equip the Spectra with one of the regulatory options for passive restraint systems.

Instead, the alleged injury results from the failure of the drivers-side frontal airbag to deploy because of defectively designed circuitry — an aspect of design that is outside the scope of FMVSS 208’s minimum standards of performance. Id. at 475.

The court of appeals accordingly held that the “no-defect presumption under section 82.008” did not apply. Id. Because there is no dispute that FMVSS 208 (specifically, the 2001 version thereof) was applicable to the Spectra and its airbag system when manufactured, we need not further address this second prong of the analysis. Kia’s entitlement to the non-liability presumption thus depends on whether FMVSS 208(1) was a mandatory safety standard with which the product complied, and (2) governed the product risk that allegedly caused the harm.

Tex. Civ. Prac. & Rem.Code § 82.008(a). We address these issues in turn. A. Compliance with Safety Standard The Ruizes argue that the first prong of the presumption, which requires a showing that the product’s design complied with a mandatory federal safety standard, has not been satisfied in two respects.

First, the Ruizes contend that the particular air bag at issue — the one in the Ruizes’ vehicle — did not comply with FMVSS 208 because it did not deploy in the crash as required. This assertion ignores the language of the relevant statute and regulation as well as the uncontrovert-ed evidence at trial. Section 82.008 requires that the product’s design comply with the pertinent standards, not that the particular unit at issue comply.

In turn, a motor vehicle’s compliance with the standards must be reached before the vehicle — here, the 2002 Spectra — is offered for sale in the United States. 49 U.S.C. § 30112(a)(1). As discussed above, compliance is reached when a vehicle is crash-tested and the resultant forces and accelerations on the dummy occupants are within the stated injury criteria limits.

49 C.F.R. § 571.208, S5.1, S6. The testimony and exhibits at trial demonstrated that the 2002 Spectra was tested under the conditions specified in FMVSS 208, and that the regulatory injury criteria were met.⁸ Accordingly, we agree with the court of appeals that the Spectra’s design complied with FMVSS 208.

Second, the Ruizes argue that compliance with FMVSS 208 is immaterial to the nonliability presumption because the regulation contains a performance standard rather than a design standard. See *Perry v. Mercedes Benz of N. Am., Inc.*, 957 F.2d 1257, 1260 (5th Cir.1992) (noting that FMVSS 208 provides “minimum ‘performance requirements’ for automobile crash-protection systems, without requiring the use of any single particular system or design”).

The Ruizes contend that “for a product’s design to comply with a mandatory standard or regulation, there logically must be a standard or regulation that mandates a design.” Kia, on the other hand, argues that the absence of a particular design requirement in FMVSS 208 is immaterial to its applicability under section 82.008.9 The plain language of section 82.008 supports Kia’s interpretation.

The statute requires a product’s design to comply with mandatory federal safety standards or regulations. Tex. Civ. Prac. & Rem.Code § 82.008(a). The Federal Motor Vehicle Safety Standards, by their terms, are safety standards.

In turn, if a particular FMVSS does not specify a design, whatever design the manufacturer does choose must nevertheless comply with that standard. Interpreting section 82.008 to apply only to federal design standards impermissibly adds language and alters the statute’s plain meaning.

Moreover, such an interpretation would deter manufacturers from creating new and better designs to improve safety. Accordingly, we agree with Kia that, in applying the nonliability presumption to a product design that complies with mandatory safety standards, section 82.008 simply means that a manufacturer’s chosen design must comply with the standard, not that the safety standard must mandate a particular design.¹⁰ FMVSS 208’s classification as a performance standard is immaterial; all agree that it is a safety standard.

And as the court of appeals held, the undisputed evidence at trial demonstrated that the 2002 Spectra complied with that standard. See 348 S.W.3d at 474; see also 49 U.S.C. § 30112(a)(1) (generally precluding a vehicle from being sold in the United States absent compliance with applicable safety standards).

Accordingly, Kia has satisfied the first prong of section 82.008(a). B. The Standard Did Not Govern the Product Risk that Allegedly Caused the Harm Under the third prong of the section 82.008(a) analysis, the 2002 Spectra design’s compliance with FMVSS 208 raises a presumption of Kia’s nonliability only if that standard “governed the product risk that allegedly caused the harm.” Tex. Civ.

Prac. & Rem.Code § 82.008(a). Kia argues that, because this case involves an occupant’s death caused by an alleged lack of crashworthiness, the “product risk” at issue here is that of occupant injury during a crash. Kia also argues that FMVSS 208 clearly governs that risk.

The Ruizes contend that the “product risk” is properly formulated as the risk that an air bag will fail to deploy because of defective circuitry, arguing that Kia’s broad characterization of the risk would result in the presumption’s applying in every crashworthiness case.

We find instructive two Fifth Circuit cases that have addressed section 82.008 in the context of compliance with the FMVSS. In *Wright v. Ford Motor Co.*, the parents of a child who was killed when an SUV owner accidentally backed over him sued Ford, the manufacturer of the SUV, on a design-defect claim. 508 F.3d 263, 267 (5th Cir.2007).

The complaint alleged that the SUV, an Expedition, had a “large and unreasonably dangerous blind spot immediately behind the vehicle” and that Ford should have included a reverse-sensing system as standard equipment on all Expedition models. *Id.* at 267-68. Ford asserted it was entitled to a nonliability presumption in light of the Expedition’s compliance with FMVSS 111, which addresses rearview mirror performance and placement in order to reduce deaths and injuries caused by a limited rear view.

Id. at 269; 49 C.F.R. § 571.111. The district court instructed the jury on the presumption, and the jury found in favor of Ford on the Wrights’ claim. 508 F.3d at 269. The Fifth Circuit affirmed, first rejecting the Wrights’ argument that the presumption’s applicability under section 82.008 requires that the safety standard at issue govern “the particular defect claimed” rather than “the risk arising from that defect.” *Id.* at 270.

The court then concluded that “[t]he risk that caused the harm and forms the basis of the Wrights’ suit is the rear blindspot of the Expedition.” *Id.* Holding that the risk was governed by FMVSS 111, the court found persuasive that the National Highway Traffic Safety Administration had considered, but decided against, amending the regulation to require additional rear-visibility systems, including reverse-sensing systems, on certain trucks.

Id. at 270-72. That the Administration had decided not to impose additional requirements beyond those already in the regulation, to address the exact risk alleged in the case, was a “further indication that [FMVSS 111] governs the product risk that allegedly caused the harm.” *Id.* at 272.

The Fifth Circuit again addressed the applicability of the nonliability presumption in *Trenado v. Cooper Tire & Rubber Co.*, a case involving alleged manufacturing and design defects in a tire that failed and caused an accident. 465 FedAppx. 375, 377 (5th Cir.2012).

The applicable regulation was FMVSS 109, which “‘specifies tire dimensions and laboratory test requirements for bead unseating resistance, strength, endurance, and high speed performance.’ ” *Id.* at 379 (quoting 49 C.F.R. § 571.109). FMVSS 109 requires a tire to “exhibit no visual evidence of [various types of damage] after being subjected to a variety of stressful conditions.” *Id.* (internal quotation marks omitted).

The tire manufacturer argued that the required regulatory tests pertained to the same characteristics — tire strength and durability — that the plaintiffs contended were lacking in the tire that failed. *Id.* at 380. The Fifth Circuit agreed with the manufacturer that “the relevant product risk” was tire failure. *Id.* In holding that the regulation governed that risk, the court explained that FMVSS 109 “require[s] a number of tests aimed at assuring that a tire is sufficiently durable to avoid failure under numerous stressful conditions” and that “the broad range of tests required by FMVSS 109... suggests] that the regulation governs tire failure in general, as opposed to a particular mode of failure or type of defect.” *Id.* We agree with the Fifth Circuit that the plain language of section 82.008 requires that a safety regulation govern product risk, not a particular product defect.

Wright, 508 F.3d at 270; Tex. Crv. Prac. & Rem.Code § 82.008(a). But the alleged defect is certainly not immaterial to the analysis. Rather, courts must distinguish between the alleged defect and the risk arising from that defect. *Wright*, 508 F.3d at 270; see also Tex. Civ. Prac. & Rem.Code § 82.008(a) (standard must govern “the product risk that allegedly caused harm”).

Thus, we must closely examine both the product risk arising from an alleged design defect and the parameters of the regulation at issue in evaluating whether the manufacturer’s compliance with that regulation entitles it to a presumption of nonliability to an injured claimant.

In this case, the Ruizes alleged that the air bag’s defectively designed wiring harness rendered it prone to open circuits and the air bag’s corresponding failure to deploy when it should have. The regulation relied upon by Kia, FMVSS 208, requires vehicles to be equipped with frontal air bags and seat belts, and specifies the maximum amount of force and acceleration that dummy occupants may encounter during a frontal-crash test.

See 49 C.F.R. § 571.208, S5.1, S6. The test thus measures how well the vehicle’s air bags and other restraint systems protect occupants. But the test presumes air bag deployment. It does not measure or apply to air-bag failure rates, and it is that risk — the risk of occupant injury due to the failure of the air bag to reliably activate and deploy— that arises from the alleged defect and is at issue in this case.

By contrast, FMVSS 210, which applies to seat-belt assembly anchorages, contains various requirements relating to the type, location, and strength of these devices that are intended to ensure “effective occupant restraint and to reduce the likelihood of their failure.” *Id.* § 571.210, SI (emphasis added). Similarly, the regulation at issue in *Trenado* required tires to undergo various tests designed to measure durability in order “to avoid failure.” 465 Fed.Appx. at 380.

Nothing in FMVSS 208 suggests a purpose of reducing the likelihood of an air bag’s failure to deploy under circumstances in which everyone agrees it should have deployed. Kia concedes that FMVSS 208 does not test for reliable deployment, but argues in its post-submission brief that this

“is not important for triggering the presumption” because “whatever standard the federal agency sets then becomes the default standard for triggering the presumption.” Kia asserts that, to the extent the lack of such testing arguably renders FMVSS 208 “inadequate to protect the public from unreasonable risks of injury or damage,” the statute gives the plaintiff the opportunity to rebut the nonliability presumption.

Tex. Civ. Prac. & Rem.Code § 82.008(b)(1). We disagree. A significant difference exists between an inadequate standard and a standard that simply does not contemplate the risk at issue. The Ruizes have not, for example, alleged that the Spectra is defective because it lacks additional occupant-restraint equipment, such as a third frontal air bag, that FMVSS 208 does not require.

Had that been the case, the presumption would have applied. See *Wright*, 508 F.3d at 270-72. But while FMVSS 208 clearly contemplates what occupant-restraint systems are required, it does not contemplate the likelihood of their failure to deploy and thus does not address that risk.

For these reasons, we hold that FMVSS 208 does not “govern[] the product risk that allegedly caused the harm” in this case. Tex. Civ. Prac. & Rem.Code § 82.008(a). The trial court and the court of appeals did not err in concluding that the presumption did not apply.

Accordingly, we need not reach the issue of whether the Ruizes rebutted that presumption pursuant to section 82.008(b).¹¹ *875III. Evidence of Negligent Design Kia next argues that, even in the absence of the statutory presumption, the evidence supporting the jury’s negligence finding is legally insufficient. A legal-sufficiency challenge will be sustained if the record reveals that evidence offered to prove a vital fact is no more than a scintilla.

King Ranch, Inc. v. Chapman, 118 S.W.3d 742, 751 (Tex.2003). Evidence does not exceed a scintilla if it is “ ‘so weak as to do no more than create a mere surmise or suspicion’ ” that the fact exists. *Ford Motor Co. v. Ridgway*, 135 S.W.3d 598, 601 (Tex.2004) (quoting *Kindred v. Con/Chem, Inc.*, 650 S.W.2d 61, 63 (Tex.1983)). Our ultimate objective in conducting a no-evidence review is to determine “whether the evidence at trial would enable reasonable and fair-minded jurors to reach the verdict.” *Whirlpool Corp. v. Camacho*, 298 S.W.3d 631, 638 (Tex.2009).

Thus, in reviewing the record, we “credit favorable evidence if reasonable jurors could, and disregard contrary evidence unless reasonable jurors could not.” *City of Keller v. Wilson*, 168 S.W.3d 802, 827 (Tex.2005).

The trial court instructed the jury in pertinent part as follows: Was the negligence, if any, of Kia Motors in designing the 2002 Kia Spectra air bag system a proximate cause of the injury to Andrea Ruiz?  For Kia Motors to have been negligent, there must have been a design defect in the 2002 Kia Spectra air bag system at the time it left the possession of Kia Motors.

A “design defect” is a condition of the product that renders it unreasonably dangerous as designed, taking into consideration the utility of the product and the risk involved in its use. For a design defect to exist there must have been a safer alternative design. “Safer alternative design” means a product design other than the one actually used that in reasonable probability— (1) would have prevented or significantly reduced the risk of the injury in question without substantially impairing the product’s utilityf;] and (2) was economically and technologically feasible at the time the product left the control of Kia Motors by the application of existing or reasonably achievable scientific knowledge.

Kia argues there is no evidence of a design defect. Kia did not object to this portion of the jury charge, and we therefore analyze the evidence in light of the charge as given. See *Wal-Mart Stores, Inc. v. Sturges*, 52 S.W.3d 711, 715 n. 4 (Tex.2001).

The parties agree that Andrea’s air bag should have deployed in the accident. They also agree that it did not deploy because of an “open circuit” in the air bag’s wiring harness, meaning a lack of metal-to-metal contact interrupted the flow of electricity through the harness.

The Ruizes’ theory at trial was that the open circuit was caused by one of two defectively designed connectors within the wiring harness. See *Nissan Motor Co. v. Armstrong*, 145 S.W.3d 131, 137 (Tex.2004) (requiring identification, by competent evidence, of a specific defect that caused the incident). Kia contends that the Ruizes’ expert failed to identify the specific defect that caused the open circuit and failed to rule out possible sources of the open circuit other than the two connectors.

As did the court of appeals, in conducting our evidentiary review we find useful the testimony of the parties’ experts regarding the overall design of the air bag system. The circuitry begins with an Air*876bag Diagnostic Unit (ADU), which is mounted to the floor of the vehicle and contains a small computer that signals for the air bags to deploy and the seat belts to tighten when a crash occurs.

The ADU is connected to a wiring harness that snakes through the dashboard to four devices— the two frontal air bags and the frontal seat-belt pretensioners. Because the driver’s-side air bag is in the steering column, the wiring from the ADU is routed via a small plastic connector through a device called a clock spring, which allows the wiring to spool and unspool without twisting or breaking as the steering wheel is turned.

The wiring exits the clock spring and connects to the air-bag module by another small plastic connector. The data downloaded from the ADU on the Ruizes’ vehicle reflected an error code “56,” which corresponds to an open electrical circuit in the driver’s-side air bag.

The data showed that the open circuit had existed for approximately forty-four hours on the car’s lifetimer, which measures how long the ignition is in the “on” position, and that the circuit closed

during the crash. Joint expert testing of the air-bag circuitry in the vehicle revealed that the ADU signaled all four devices to activate and therefore functioned properly during the crash.

Three of those devices — the seat-belt pretensioners and the passenger's-side air bag — deployed properly. The clock spring, the air-bag module, and the wiring from the ADU to the driver's-side air bag all tested normally and were also ruled out as the cause of the open circuit.

After reconnecting the harness to the air-bag module, the experts observed an open circuit occur briefly when Kia's expert picked up the module enough to move the clock spring. Having eliminated the ADU, the clock spring, the module, and the wiring as the cause, the Ruizes' air-bag expert, Geoffrey Mahon, concluded that the source of the open circuit was the connector to the air-bag module or the connector to the clock spring.

Mahon then identified several deficiencies in the designs of the two connectors by comparing them to alternative designs by Packard Electric and Volkswagen in model-year 2002 vehicles. As the court of appeals noted, while the Packard module connector has locking devices that push plastic tabs outward on all sides to prevent movement, and the Volkswagen module connector is glued into place, the Kia connector locks into place with tabs on only one side.

348 S.W.3d at 478-79. Mahon explained that this allows for "a little bit of motion that you can generate on [the other] side," which can cause the connector to "vibrate out" and cause a loss of electrical connectivity. Mahon also criticized the Kia clock-spring connector for attaching directly to the clock spring, subjecting it to additional vibration, while commending the Packard connector's placement in a more "secure area" with less movement.

In addition, both the Packard and Volkswagen clock-spring connectors contain an additional locking device, while Kia's does not. Finally, the Packard clock-spring connector has a larger metal surface area than the Kia connector, which provides a better chance of "having a good metal-to-metal contact." Mahon testified that the alternative designs were safer as well as technologically and economically feasible at the time the 2002 Spectra was designed, as they were in production in other vehicles.

The utilization of either of these designs, Mahon concluded, would have significantly reduced the risk of the open circuit that occurred in the Ruizes' accident. Mahon also testified that, based on the fact that the air-bag system in general and the connectors in particular had not been tampered with or adjusted before the accident, he was "fairly certain" that the design *877problems existed when the vehicle left Kia's control.

Mahon ultimately concluded that the wiring harness's connector system in the 2002 Spectra was defectively designed, rendering it unreasonably dangerous and proximately causing the open circuit that led to the failure of Andrea's air bag to deploy during the accident. Kia argues that

Mahon never explained what particular defect existed in either the module connector or the clock-spring connector to cause the open circuit.

Instead, Kia contends, Mahon described the open circuit as a “gremlin” of unknown origin that was possibly located in one of those connectors.¹² Kia thus concludes that the only evidence of a defect is the product failure — specifically, the air bag’s failure to deploy because of an open circuit — which by itself is insufficient to prove a defect. *Cooper Tire & Rubber Co. v. Mendez*, 204 S.W.3d 797, 807 (Tex.2006) (“Texas law does not generally recognize a product failure standing alone as proof of a product defect.”).

Comparing Mahon’s testimony to expert testimony in other cases, we disagree with Kia’s characterization of the evidence. For example, in *Cooper Tire*, a manufacturing-defect case involving tread separation on a tire, we discounted as legally insufficient expert testimony offered to prove that the separation occurred because of wax contamination at the manufacturing plant.

Id. We identified several deficiencies with the primary expert’s testimony, including the novel nature of the theory that wax contamination is a cause of tread separation and the lack of general acceptance in the scientific community of that theory, *id.* at 803; the absence of evidence that the tire in question was even contaminated with wax, *id.*; the expert’s reliance on a report that undermined his theory, *id.* at 804; and the lack of proof that wax would “cause lack of adhesion between the components of the tire after it is ‘cooked’ in the vulcanization process,” *id.* at 805.

Accordingly, we held that the expert’s testimony amounted to no more than “a naked hypothesis untested and unconfirmed by the methods of science.” *Id.* In *Ridgway*, the plaintiff alleged that a manufacturing defect in a truck’s electrical system caused the truck to catch fire while he was driving. 135 S.W.3d at 599-600.

We agreed with the trial court’s summary judgment on the claim, noting that the plaintiff’s expert “could say no more than that he ‘suspects’ the electrical system caused the fire,” and that the expert expressly declined to rule out part of the fuel system as a possible cause and suggested further investigation. *Id.* at 600-01. Mahon’s testimony did not suffer from these types of shortfalls.

Mahon used the term “gremlin” in describing the open circuit as an “intermittent fault” that was difficult to find because it corrected itself before it could be observed. But he did not, as Kia contends, take an unsupported leap from “gremlin” directly to “product defect.” Rather, Mahon explained that this type of fault, which was triggered during joint expert testing of the harness, “ha[s] to occur where two pieces of metal come together.” Mahon and Kia’s expert jointly eliminated the ADU, the air bag, the clock spring, and the wiring as the cause, leaving only the connectors as the possible source.

Further, as discussed above, Mahon identified several specific deficiencies in the module and clock-spring connectors that increased the risk of their failure to make reliable electrical contact. *878 Mahon ultimately concluded that these deficiencies proximately caused the open circuit that prevented the air bag in the Ruizes' vehicle from deploying.

We hold that Mahon's testimony "does not present a case where 'there is simply too great an analytical gap between the data and the opinion proffered,' or where the expert's testimony amounted to nothing more than a recitation of his credentials and a subjective opinion." *Ford Motor Co. v. Ledesma*, 242 S.W.3d 32, 40 (Tex.2007) (quoting *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 726 (Tex.1998), and citing *Cooper Tire*, 204 S.W.3d at 801).

Kia also argues that Mahon's testimony was legally insufficient because he failed to rule out a third connector — the ADU connector — or a manufacturing defect in the module or clock-spring connector as potential causes of the open circuit.

We disagree. As to the ADU connector, Kia argues that Mahon never tested that connector, that it may not be ruled out merely because it was not attached when the experts generated the intermittent open circuit during testing, and that, because the ADU connector is a multi-port connector, it may not be ruled out by the fact that the ADU successfully commanded three of the four restraint devices to deploy during the accident.

Mahon testified, however, that he and Kia's consulting expert tested the driver's-side circuit wires while they were attached to the connector and found nothing wrong. This testimony, in conjunction with the experts' triggering the intermittent open circuit during testing that did not involve the ADU connector, constitutes some evidence that the ADU connector was not the source of the open circuit that caused Andrea's air bag not to deploy.

Kia also relies on *Cooper Tire* in arguing that the Ruizes were required to rule out the possibility that a manufacturing defect caused the open circuit. In *Cooper Tire*, we held that none of the plaintiffs' experts' testimony was sufficiently reliable to constitute evidence supporting the plaintiffs' claim that a manufacturing defect involving wax contamination caused a tire to fail.

204 S.W.3d at 807. We then concluded that "the mere fact that the tire failed... is insufficient to establish a manufacturing defect of some sort. Such a failure could have been caused by design defect." *Id.* Kia contends that, conversely, the Ruizes may not recover for a design defect without ruling out a manufacturing defect. Unlike *Cooper Tire*, however, the Ruizes did not rely on "the mere fact that the [air bag] failed" to establish a design defect.

Id. Further, we have never held that a manufacturing defect must be ruled out in all design-defect cases, or vice versa. Rather, we have held that an expert should exclude "other plausible causes" presented by the evidence. *Transcontinental Ins. Co. v. Crump*, 330 S.W.3d 211, 218 (Tex.2010)

(citations and internal quotation marks omitted). Ironically, Kia appears to argue that the mere fact that the air bag failed to deploy is evidence of a manufacturing defect that must be ruled out.

But Kia points to no other evidence suggesting such a defect. In light of the affirmative evidence the Ruizes presented that a design defect caused the open circuit, we decline to reverse the jury's findings based on a failure to rule out a manufacturing defect. IV. Admission of Other Incidents During discovery, the Ruizes made a broad request for information regarding warranty claims involving a short or open circuit in a frontal air bag in 2002 Spectras and similar Kia vehicles.

In response, Kia produced a spreadsheet summarizing that information. The spreadsheet listed 432 paid warranty claims, but only sixty-seven *879of those claims involved the code 56 that was at issue in this case. The information for each claim was prepared by the dealership that submitted it for payment. It included various cause codes and, for most claims, contained notes summarizing the customer complaint, the problem that was diagnosed, and the repair that was made.

The trial court admitted the spreadsheet as an exhibit at trial over Kia's objection on hearsay and relevance grounds, and the court of appeals held that admission of the evidence was not an abuse of discretion. See *U-Haul Int'l, Inc. v. Waldrup*, 380 S.W.3d 118, 132 (Tex.2012) (trial court's evidentiary rulings are reviewed for an abuse of discretion).

The court of appeals first held that the portion of the spreadsheet reflecting the sixty-seven code-56 claims qualified as an admission by party-opponent under Rule 801 of the Texas Rules of Evidence and therefore was not hearsay. 348 S.W.3d at 484.

The court went on to hold that Kia had waived any error stemming from admission of the remainder of the document by failing to request a limiting instruction. *Id.* Finally, the court held that any error by the trial court in admitting the spreadsheet was harmless. *Id.* at 484-85. A. Waiver As an initial matter, we disagree with the court of appeals' holding that, because the portion of the spreadsheet summarizing the code-56 claims was not hearsay, Kia waived its objection to the admission of the remainder of the spreadsheet by failing to request a limiting instruction.

The court appeared to hold that, if one portion of a document is admissible, and another portion is inadmissible, a party must request a limiting instruction to preserve error in the admission of the improper portion. See 348 S.W.3d at 484. This holding mischaracterizes the nature of a limiting instruction, which must be requested to preserve error "[w]hen evidence... is admissible as to one party or for one purpose but not admissible as to another party or for another purpose." Tex.R.

Evid. 105(a).¹³ A limiting instruction does not provide a mechanism for the admission of a document that contains both admissible evidence and inadmissible, unredacted evidence. In other words, such an instruction does not allow for admission of evidence that is otherwise inadmissible

for any purpose. Further, assuming the code-56 warranty claims are not hearsay,¹⁴ they must still be relevant to be admissible.

Tex.R. Evid. 402 (“Evidence which is not relevant is inadmissible.”); see also *TXI Transp. Co. v. Hughes*, 306 S.W.3d 230, 241 (Tex.2010) (noting that whether evidence is hearsay “has nothing to do with the relevancy requirement in Rules 401 and 402”). Kia objected to the entire spreadsheet on relevance grounds, arguing that the warranty claims were not sufficiently similar to the underlying incident to merit admission.

Armstrong, 145 S.W.3d at 138 (describing the degree of similarity required for evidence of other incidents to be admissible). The court of appeals did not discuss the relevance of any portion of the spreadsheet, holding only that any error in admitting it was waived or harmless. *880The Ruizes also argue that Kia waived its objection to the portion of the spreadsheet describing the code-56 claims by failing to object when the Ruizes’ counsel questioned Kia’s corporate representative, Michelle Cameron, at trial about the information contained in that portion of the document.

Before trial Kia filed, and the trial court granted, a motion in limine requesting that the Ruizes’ counsel be prohibited from introducing evidence of other incidents or claims absent a demonstration, outside the jury’s presence, that such incidents were “substantially similar” to the one at issue. At trial, before Cameron took the stand and outside the jury’s presence, Kia renewed its objection to the admissibility of the entire spreadsheet on hearsay and relevance grounds, and the trial court overruled Kia’s objection.

While questioning Cameron, the Ruizes’ counsel formally offered the spreadsheet, Kia’s counsel again objected, and the trial court overruled the objection and admitted the spreadsheet. Only then was Cameron questioned about the contents of the document.

Under Rule 103 of the Texas Rules of Evidence, a party preserves error in the admission of evidence if “a timely objection or motion to strike appears of record, stating the specific ground of objection.” Tex.R. Evid. 103(a)(1).

The rule clarifies that “[w]hen the court hears objections to offered evidence out of the presence of the jury and rules that such evidence be admitted, such objections shall be deemed to apply to such evidence when it is admitted before the jury without the necessity of repeating those objections.” *Id.* Under Rule 103(a), Kia was not required to object to the Ruizes’ counsel’s questioning Cameron about the spreadsheet to preserve error.

The Ruizes argue that Kia nevertheless failed to preserve error, at least as to the admission of the code-56 warranty claims, because Kia “voluntarily allowed the jury to hear the same substantive information” through Cameron’s testimony, independently of the spreadsheet.¹⁵ Specifically, the Ruizes contend that Kia failed to object to counsel’s questioning Cameron “about ‘the big picture’

— her search of Kia’s database of warranty claims — before eliciting any testimony about [the database].” This line of questioning, the Ruizes argue, led to Cameron’s testifying without objection that she found sixty-seven code-56 open circuits occurring on or before the date of the accident at issue in the case.

We disagree with this characterization of the record. After the trial court formally admitted the spreadsheet in its entirety over Kia’s objection, the Ruizes’ counsel proceeded to question Cameron extensively about the creation and contents of the document.

In the middle of that line of questioning, Cameron was asked, “in terms of the big picture,” how many open circuits in the driver’s-side air bag she found when compiling the claims. Cameron responded that she found sixty-seven claims involving a code-56 notation, and she was then asked to elaborate on the additional notes that were included on the spreadsheet with respect to those claims.

This testimony about the code-56 claims was not independent of the spreadsheet, but was based directly on the information contained in it. Kia objected multiple times to the admission of evidence of the warranty claims, including those involving a code 56, and the trial court overruled those objections. *881On this record, we hold that Kia did not waive its relevance complaint about the trial court’s admission of the spreadsheet.

Accordingly, we turn to the substance of that complaint. B. Relevance of Other Incidents In *Armstrong*, we held that evidence of other incidents involving a product may be relevant in a products-liability case if the incidents “occurred under reasonably similar (though not necessarily identical) conditions.” 145 S.W.3d at 138.

We further noted that the relevance of other incidents “depends upon the purpose for offering them.” *Id.* Kia argues that none of the warranty claims were sufficiently similar to the underlying case to be admissible.

The Ruizes effectively concede that the claims not involving a code 56 were not relevant, arguing only that any error in admitting those claims was harmless. This concession is significant; it is undisputed that almost eighty-five percent of the claims on the admitted spreadsheet are irrelevant to the underlying proceedings.

As to the code-56 claims, we agree with Kia to an extent and hold that some, but not all, of the code-56 claims described in the spreadsheet are sufficiently similar to be relevant to the Ruizes’ claims. Given that the alleged defect here involves the design of the connectors at the clock spring and air-bag module, a particular code-56 warranty claim must at least implicate one of those connectors as the source of the open circuit.

In *Armstrong*, for example, the plaintiff sued Nissan under various products liability theories, alleging that her vehicle accelerated on its own because of a defective throttle cable. 145 S.W.3d at 135-36. In analyzing the admissibility of other incidents of unintended acceleration, we held that such reports were irrelevant to the extent that they made no mention of the throttle cable and instead indicated “an unknown or some other cause.” *Id.* at 142.

By comparison, in this case, to the extent the descriptions of the code-56 claims reflect a problem with one of the two pertinent connectors, they are sufficiently similar to be probative of the design defect alleged by the Ruizes.¹⁶ However, with respect to the code-56 claims that reflect an unknown cause, do not address the cause, or reflect a cause unrelated to one of the two pertinent connectors, those incidents are not admissible to prove Kia’s negligence in this case.¹⁷ The nature of the Ruizes’ products liability suit against Kia affects our relevance analysis.

To be successful on a defective-product claim, a plaintiff must identify “a specific defect... by competent evidence.” *Id.* at 137. In *Armstrong*, the database of other incidents involving unintended acceleration was inadmissible because there was “nothing in the database to suggest that the defect, if any, causing those... incidents was similar to any of the defects alleged” in the case.

Id. at 141. Here, the Ruizes identified certain aspects of the design of the module and clock-spring connectors as the “specific de-*882feet” in the Spectra’s air-bag system that caused the open circuit. For the code-56 warranty claims reflected on the spreadsheet to be relevant and admissible, then, some indication must exist that the module and clock-spring connectors contributed to the open circuits in those other incidents.¹⁸ The Ruizes, however, insist that they “were not relying on [those] claims to show a defect (although the claims certainly corroborated the other evidence of a defect),” but instead offered them for the limited purposes of (1) showing Kia’s notice of open circuits and conscious indifference to the problem, and (2) rebutting Kia’s contention that Lawrence Ruiz’s replacement of the radio caused the open circuit.

In turn, the Ruizes contend that Kia’s failure to request a limiting instruction rendered the claims admissible for all purposes. See Tex.R. Evid. 105(a). We fail to see how warranty claims involving open circuits not tied to the alleged defect are relevant to “notice” in a meaningful way.

As discussed above, such claims are not reasonably similar to the incident in question and thus are not relevant to show Kia’s negligence. In turn, notice of incidents that are not reasonably similar to the one at issue has no bearing on Kia’s gross negligence in this particular case. See *Gen. Chem. Corp. v. De La Lastra*, 852 S.W.2d 916, 921 (Tex.1993) (prior incident “involv[ing] facts nearly identical to this one” was relevant to claim of gross negligence related to manufacturer’s failure to warn); see also *E-Z Mart Stores, Inc. v. Terry*, 794 S.W.2d 63, 65 (Tex.App.-Texarkana 1990, writ denied) (in store employee’s suit claiming that employer’s negligence caused his back injury suffered while lifting a heavy box at work, evidence of other lawsuits involving back

injuries suffered at employer's store was not admissible to show store's prior notice of such injuries where employee failed to show that other incidents occurred under reasonably similar circumstances).

The reasonable-similarity requirement does not disappear simply because other incidents are being offered to show notice rather than negligence. Further, the Ruizes' argument that the spreadsheet was admissible to rebut Kia's assertion that the radio replacement caused the open circuit is specious. Had Kia contended that open circuits caused by radio replacements were common, the claims may have been admissible to rebut that contention.

See *Armstrong*, 145 S.W.3d at 142 (reports of other incidents suggesting that a deteriorated boot could and did jam the throttle cable were admissible to rebut Nissan's claim that the possibility of such an occurrence "was about as likely as 'being struck by lightning' "). But Kia never made this argument, and evidence that radio replacements did not cause other occurrences of open circuits simply has no bearing on whether a radio replacement caused this open circuit.

Further, Cameron testified that, because the spreadsheet only listed paid warranty claims, it did not include claims that were excluded from warranty coverage because the repairs stemmed from alterations or modifications to the vehicle.

Thus, an open circuit caused by a radio replacement would not have been covered and would not have been included on the spreadsheet. For these reasons, we hold that the trial court erred in admitting the spreadsheet. Both the claims not involving a code 56 and the code-56 claims that did not at least implicate the module connector or *883clock-spring connector were irrelevant to the issues in the case.

Because those claims were, not admissible for any purpose, Kia did not waive error by failing to request a limiting instruction under Rule 105. C. Harmful Error Although the trial court's admission of the spreadsheet was error, such error is reversible "only if the error probably (though not necessarily) resulted in an improper judgment." *Armstrong*, 145 S.W.3d at 144; *Tex.R.App.*

P. 61.1. In analyzing whether the trial court's error was harmful, "[w]e review the entire record, and require the complaining party to demonstrate that the judgment turns on the particular evidence admitted." *Id.* The court of appeals concluded that admission of the spreadsheet was harmless because (1) it was cumulative of Cameron's testimony, (2) the Ruizes emphasized only the portion relating to the code 56 claims, (3) the spreadsheet is difficult to decipher, and (4) the warranty claims were not the only evidence presented of a defect.

348 S.W.3d at 485. We disagree with the court of appeals that the spreadsheet was cumulative of Cameron's testimony. As discussed above, Cameron's testimony cannot be examined in a vacuum; her discussion of the warranty claims, whether involving a code 56 or not, was elicited in conjunction with the spreadsheet itself and may not be analyzed independently of that document.

After all, she was called to the witness stand for one purpose only — to discuss the warranty claims summarized in the spreadsheet— and absent that document there would have been no reason for her to testify. As to the jury’s ability to understand the spreadsheet, Cameron was asked extensively about the document’s organization, how it was compiled, and the nature of the information that was included.

The only possible purpose of such an exercise was to allow the jury to consider the document intelligently. While the document is long and includes some technical terms and codes, it is not indecipherable, particularly when considered with Cameron’s testimony.

We also disagree with the court of appeals’ conclusion that the Ruizes’ emphasis on the code-56 claims during trial weighs against finding harm. Again, the Ruizes do not dispute that the vast majority— almost eighty-five percent — of the incidents reflected on the spreadsheet were irrelevant and inadmissible. And we find neither the witness testimony nor counsel’s argument nearly as limited as the Ruizes suggest.

In his opening statement, the Ruizes’ counsel posited that the air-bag system in question “has a failure rate of open circuits a thousand times higher... than the U.S. industry standard.”¹⁹ In comparing Kia with the industry standard, Mahon at some points discussed the code-56 claims, but at others was asked about claims in which the term “loose connector” or “poor contact” was used, irrespective of whether those claims involved a code 56.

Indeed, both Mahon and Cameron were asked to highlight the fact that, independent of the occurrence of a code 56, the most frequent cause-code description on the spreadsheet was “poor contact.” The “poor contact” code was again emphasized in the questioning of Kia’s expert, John Hinger, who was also asked whether “we have over 400 confirmed problems with Kia’s system... compared to the warranty... [v]ersus one reported complaint for the Volkswagen seat belt clasp.” In closing arguments, counsel asked the jury to *884examine the spreadsheet and “look at how many times they list ‘poor contact, poor contact, poor contact, poor contact, poor contact, loose connection, loose connection, loose connection, loose connection.’ ” Further, there is no indication that the witnesses were ever asked to focus on the portion of code-56 claims that referenced a problem with a module connector or clock-spring connector.

At one point, the Ruizes’ counsel effectively conflated the code-56 claims with occurrences of “open connectors,” asking Mahon: “Now, if you want to look at why there is [sic] 60 or so open connectors — assembled connectors nevertheless get opened, do you need to go to design drawings and the inspection of the components themselves to see why connectors aren’t staying connected?” In a follow-up question, counsel asked whether Mahon had “seen a single detailed analysis of why Kia’s assembled connectors are coming unconnected during normal use.” The record thus demonstrates significant emphasis throughout trial on the overwhelming number of claims that were not relevant.

The court of appeals and the Ruizes downplay this emphasis by arguing that the spreadsheet was not the only evidence of a defect and thus was not the sole basis underlying the jury's verdict in the Ruizes' favor. As discussed above, legally sufficient evidence separate and apart from the spreadsheet supports the defect finding. But that does not end the discussion.

In conducting the legal-sufficiency review, we credited evidence favorable to the verdict, disregarded evidence contrary to the verdict, and found that more than a scintilla of evidence supported the negligence finding. *City of Keller*, 168 S.W.3d at 827.

In analyzing the harm caused by the improperly admitted spreadsheet, however, we review the entire record, which reveals that the existence of a defect was hotly contested by competing expert testimony at trial. The spreadsheet is an oversized (18" x 24"), sixteen-page document and was one of the exhibits requested by the jury during deliberations.

The sheer volume of irrelevant yet prejudicial information presented to the jury in that document and the consistent focus on it at trial — often on the document as a whole — make it very difficult to overlook the likely effect it had.

On this record, Kia has demonstrated, and we hold, that the erroneously admitted spreadsheet probably caused the rendition of an improper judgment. *Tex.R.App. P. 61.1(a)*. We therefore reverse and remand for a new trial.

V. Conclusion We hold that the presumption of nonliability in section 82.008 of the Texas Civil Practice and Remedies Code does not apply because Kia has not shown that the design of the 2002 Spectra complied with a federal safety standard governing the product risk that allegedly caused the harm in this case.

We further hold that the Ruizes presented legally sufficient evidence to support the jury's verdict on their negligence claim against Kia. Accordingly, Kia is not entitled to a take-nothing judgment. However, we also hold that the trial court erroneously admitted irrelevant evidence of other, dissimilar incidents and that such error was harmful, requiring a new trial.

We accordingly reverse the court of appeals' judgment and remand the case to the trial court for further proceedings consistent with this opinion. Justice BOYD did not participate in the decision.. The air bag warning light came on about a week before the accident and remained on continuously until the accident. Andrea's daughter Shenequa testified that Andrea had planned to have the vehicle serviced the following week; however, the vehicle was not serviced before the accident..

The plaintiffs include Lawrence Ruiz (individually and as representative of the estate of Andrea Ruiz), and Lawrence and Andrea's children, Shenequa Ruiz, Christopher Ruiz, and Suzanna Ruiz.. In their petition, Plaintiffs asserted both strict-liability and negligence claims against Kia.

The jury charge included only a negligence question.. Lawrence had installed a new radio on the Spectra the week before the accident, and Kia posited at trial that the installation may have caused the open circuit. Kia has not challenged the jury's finding on this issue..Kia first raised the presumption as an affirmative defense in its pleadings.

The Ruizes filed a motion for partial summary judgment as to this defense, arguing the presumption did not apply as a matter of law. The trial court granted that motion. Kia nevertheless requested a jury instruction on the presumption, which was denied.

Finally, in its JNOV motion, which was also denied, Kia challenged the jury's negligence finding in part on grounds that the presumption applied and that no evidence was presented to rebut the presumption.. As the court of appeals noted, Congress ' delegated authority to prescribe such standards under the Act to the Secretary of Transportation, who in turn has delegated such authority to the National Highway Traffic Safety Administrator.

348 S.W.3d at 472 n. 1 (citing 49 C.F.R. § 1.50(a) (2008)).. The injury criteria measure, inter alia, "forces and accelerations" involving the head, chest, and upper leg during the crash. 49 C.F.R. § 571.208, S6.2-6.5.. FMVSS 208 requires a crash test from three different frontal angles: a direct frontal crash and a frontal crash from an angle up to thirty degrees in either direction.

49 C.F.R. § 571.208, S5.1.. Amici Texas Civil Justice League, The Association of Global Automakers, The Alliance of Automobile Manufacturers, and Texas Association of Defense Counsel similarly argue that the statute does not require compliance with a federal "design standard.". If, as the Ruizes assert, the presumption only arises in design-defect cases when there is a government-mandated design, then compliance with FMVSS 208 would never trigger the presumption in a design-defect case.

Yet the Ruizes concede in their post-submission brief that the presumption could apply in some air bag cases involving an alleged design defect, such as a claim for inflation-induced injuries from a deploying air bag or injuries caused by a deploying air bag's failure to adequately protect the occupant from injury.. Several amici submitted briefs discussing the application of section 82.008(b), but we need not discuss them in light of our disposition..

Amicus Product Liability Advisory Counsel similarly argues there was no proof of a specific defect that caused the open circuit.. To the extent the Ruizes argue that Kia was required to offer a redacted version of the spreadsheet to preserve error, they fail to cite any authority for this contention. Further, Kia objected to the spreadsheet in its entirety, but also twice argued to the trial court that, at a minimum, the spreadsheet should be redacted..

Kia has not challenged the court of appeals' holding that the claims are not hearsay, and we do not address it here.. The court of appeals agreed with the Ruizes' characterization of Cameron's

testimony as cumulative of the spreadsheet, although the court did so in the context of holding that admission of the spreadsheet was harmless. 348 S.W.3d at 484-85..

For example, the notes for one of the code 56 claims describe an "intermittent connection problem at steering column connector" that was corrected by "tighten[ing] and cleaning] terminal." The notes for another code 56 claim state: "R & R [presumably meaning repaired and replaced] connector to drivers side air bag module, and chkd [sic] connec[tions]. Pin fit connectors and applied stabilant onto connector when reassembled."

For example, the notes for one of the code 56 claims states only: "checked all pin connectors to module, replaced air bag module." The notes on another claim state that the wiring and air bag were replaced, but say nothing about the connectors..

We note that there is no indication that any of the warranty claims involved incidents in which an air bag actually failed to deploy under circumstances in which it should have deployed.. The experts testified that the U.S. industry standard for air bag failure rates is 1 failure per 1 million over the fifteen-year life of the vehicle.