SUPERIOR COURT OF DECATUR COUNTY
STATE OF GEORGIA

JAMES BRYAN WALDEN and LINDSAY WALDEN, Individually and on Behalf of the Estate of Their Deceased Son, REMINGTON COLE WALDEN, Plaintiffs, vs. CHRYSLER GROUP, L.L.C. and BRYAN L. HARRELL, Defendants.	* * * * * * * * * * * * *	CIVIL ACTION FILE NO. 12-CV-472

PLAINTIFFS' RULE 702 MOTION CHALLENGING CHRYSLER EXPERT PAUL M. TAYLOR'S "EXPERT" TESTIMONY ABOUT STATISTICS

Chrysler Group LLC (hereinafter "Chrysler") has designated two men to testify about "statistics" – Paul M. Taylor and M. Laurentius Marais. Through both proffered witnesses, Chrysler attempts an unbridled offloading of clearly inadmissible testimony and exhibits.

One of Chrysler's supposed "statistical" experts is Paul M. Taylor. Through him Chrysler attempts to proffer testimony about (1) a *statistical* analysis of data from the Fatal Accident Reporting System ("FARS") Chrysler submitted to the National Highway Traffic Safety Administration ("NHTSA") Office of Defects Investigation ("ODI") when ODI was investigating the Chrysler Jeeps with rear gas tanks; and (2) a *statistical* analysis of the field performance of the WJ Jeep Grand Cherokees in comparison to other vehicles."[1]

Chrysler's proffer of Taylor to give 'statistical' testimony must be excluded for six separate but equally compelling reasons:

[1] Chrysler's Supplemental Response to Plaintiffs' First Continuing Interrogatories (Ex. 1).

First, Taylor is not an expert at statistical analysis, and does not even claim to be. He is a mechanical engineer. Taylor's practice as a mechanical engineer "focuses on the investigation of accidents involving consumer products, vehicles, or industrial equipment, and concerns relating to the mechanical design of parts or systems, such as automotive components."[2] Although Taylor might be qualified to offer expert testimony in the area of mechanical engineering, he is not in any way qualified to offer expert testimony about *statistics* – an area of expertise in which Taylor has absolutely no education or training other than a single college course.

Second, Chrysler proposes to have Taylor offer statistical testimony involving other wrecks. The black-letter rule in Georgia is that statistical evidence regarding other wrecks is not admissible unless the other wrecks are "substantially similar" to the wreck at issue. *Cooper Tire & Rubber Co. v. Crosby*, 273 Ga. 454, 455 (2001). Here, the other wrecks upon which Taylor's statistical arguments are based are *not* substantially similar to this wreck. Taylor Dep., 155:03-09 (Taylor admits he made no effort to ensure the wrecks were substantially similar) (Ex. 3). Therefore, Taylor's statistical testimony is not admissible. Because it is Chrysler's burden to demonstrate the wrecks involved in Taylor's statistical arguments are substantially similar, and Chrysler cannot meet that burden, Taylor's testimony must be excluded. *Crosby*, 273 Ga. at 455 (statistics based on wrecks that are not substantially similar are inadmissible); *see Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25-26 (2011) (Chrysler bears burden on this Rule 702 motion).

Third, Taylor's statistical testimony is irrelevant and is calculated to confuse and mislead the jury and evade the defect question in this case.

[2] CV of Paul M. Taylor (Ex. 2).

Fourth, Taylor's statistical testimony is based upon and is an attempt to inject into the trial inadmissible hearsay.

Fifth, an essential methodology used by Taylor to construct his statistical analysis is unreliable: Taylor inappropriately applied confidence intervals to census data. Real statistical experts do not do that.

Sixth, even if real statistical experts did calculate and apply confidence intervals to census data, Taylor's own such calculations are wholly unreliable. That is, of course, not a surprise since Taylor is not a real statistical expert and does not claim to be.

I. THE LAW: ADMISSIBILITY OF EXPERT TESTIMONY UNDER O.C.G.A. § 24-7-702(b).

The pertinent statute, O.C.G.A. § 24-7-702(b), provides:

> ***If*** scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, [then] a witness [who is] qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise, ***if***:
>
> (1) The testimony is based upon sufficient facts or data; [***and***]
> (2) The testimony is the product of reliable principles and methods; ***and***
> (3) The witness has applied the principles and methods reliably to the facts of the case which have been or will be admitted into evidence before the trier of fact.

(Emphasis added.)

Georgia's statute provides that Georgia courts may rely on *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993), and its federal court progeny. O.C.G.A. § 24-7-702(f).

"Expert testimony may be admitted into evidence if: (1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry

mandated in *Daubert*; ***and*** (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue." *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562 (11th Cir. 1998) (emphasis added).

To assess reliability, courts in Georgia apply the four *Daubert* factors: "(1) whether the theory or technique can be tested; (2) whether it has been subjected to peer review; (3) whether the technique has a high known or potential rate of error; and (4) whether the theory has attained general acceptance within the scientific community." *Webster v. Desai*, 305 Ga. App. 234, 235 (2010) (quoting *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1312 (11th Cir. 1999)). *Daubert's* "reliability requirement is designed to exclude so-called 'junk science.'" *Woodley v. PFG-Lester Broadline, Inc.*, 556 F. Supp. 2d 1300, 1307 (M.D. Ala. 2008).

The party seeking to introduce the expert – here, Chrysler – bears the burden of satisfying these criteria, and the court's decision to exclude an expert's opinion cannot be reversed absent a "manifest" abuse of discretion. *See Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25-26 (2011); *Webster*, 305 Ga. App. at 235. An expert's opinion that is neither relevant nor reliable *must be* excluded by the trial judge. *Daubert*, 509 U.S. at 591, 593, 113 S. Ct. at 2796-97.

II. TAYLOR'S PROPOSED TESTIMONY DOES NOT PASS MUSTER UNDER RULE 702.

A. TAYLOR IS NOT AN EXPERT IN STATISTICAL ANALYSIS.

Taylor is not an expert in statistics and is therefore not qualified "as an expert" to testify about that subject matter. Taylor has no degrees in statistics or mathematics; instead, the entirety of his undergraduate and post-graduate education was devoted to mechanical engineering. Taylor Dep., 162:13-15; 162:23-163:7; 163:08-10 (Ex. 3); *see also* Taylor CV, p. 1 (Ex. 2). Taylor's formal training in statistics consists of a single undergraduate course – engineering

statistics. *Id*. at 160:12-17; 161:06-15. He has never taught a course in statistics at the high school or college level. *Id*. at 162:01-08. The only practical experience Taylor has teaching statistics is from "help[ing] [his] kids through school when they [had] questions on the areas of statistics." *Id*. at 161:19-21. Taylor has never published articles or books about conducting statistical analyses. *Id*. at 162:09-12; *see also* Taylor CV, p. 2 (Ex. 2). He has never published any articles or books about conducting statistical analysis using the FARS database. Taylor Dep. at 162:05-08. Taylor is not and never has been a member of any professional statistics organization. *Id*. at 169:01-05.[3]

As evidenced by the long list of cases in which Taylor has testified for automakers, he is usually called upon only to opine that other wrecks plaintiffs submit as "other similar incidents" ("OSIs") are not substantially similar – testimony that relies on Taylor's claimed engineering expertise, not any supposed expertise in statistics. *See* Taylor Testimony History, Ex. 15 to Dep. (Ex. 4) (including notations of "OSI" next to the cases in which Taylor has served as an OSI expert).

For the foregoing obvious reasons, Taylor himself does not even claim to be an expert in statistics. According to his CV, Taylor specializes "in the investigation and analysis of products and systems in the consumer, transportation, and industrial environments." Taylor CV, p 1 (Ex. 2). Taylor's CV also reveals "[h]is practice focuses on the investigation of accidents involving consumer products, vehicles, or industrial equipment, and concerns relating to the mechanical design of parts or systems, such as automotive components." *Id*. at p. 1. Taylor's CV does not contain a single reference to statistics or statistical analysis. *See generally id*.

[3] The only professional organizations in which Taylor is a member are the American Society of Mechanical Engineers and the National Fire Protection Association. Taylor CV, p. 3 (Ex. 2).

Taylor is in fact nothing more than a mechanical engineer whose specialty is testifying about engineering for automakers. He does not possess even the most basic qualifications to be a qualified expert in statistical analysis. Taylor's testimony regarding his statistical analyses and related opinions should be excluded.

B. TAYLOR'S PROPOSED TESTIMONY SHOULD BE EXCLUDED BECAUSE IT IS BASED ON OTHER WRECKS THAT ARE NOT SUBSTANTIALLY SIMILAR TO THE WRECK IN THIS CASE.

Chrysler is attempting to introduce, using Taylor as a supposed "expert," testimony about other car wrecks *that are not substantially similar to the subject wreck.* The proferred testimony is not admissible under Georgia law.

1. Chrysler cannot offer evidence of other accidents *without first proving* substantial similarity.

In Georgia, other incident evidence is admissible *only* when the other incidents have been shown to be "substantially similar" to the incident in the present case.[4] *Stovall v. DaimlerChrysler Motors Corp.*, 270 Ga. App. 791, 792 (2004); *Ray v. Ford Motor Co.*, 237 Ga. App. 316, 317 (1999); *Uniroyal Goodrich Tire Co. v. Ford*, 218 Ga. App. 248, 258 (1995); *Ford Motor Co. v. Stubblefield*, 171 Ga. App. 331, 339 (1984); *Gunthorpe v. Daniels*, 150 Ga. App. 113, 113-14 (1979). "In products liability cases, the 'rule of substantial similarity' prohibits the admission into evidence of other transactions, occurrences, or claims unless the proponent first shows that there is a 'substantial similarity' between the other transactions, occurrences and the claim at issue in the litigation." *Colp v. Ford Motor Co.*, 279 Ga. App. 280, 281 (2006).

[4] As the substantial similarity rule was not displaced by the 2011 Georgia Rules of Evidence legislation, this standard still applies. *See* 2011 Ga. Laws 52, § 1 ("Unless displaced by the particular provisions of this Act, the General Assembly intends that the substantive law of evidence in Georgia as it existed on December 31, 2012, be retained.").

In *Cooper Tire & Rubber Co. v. Crosby, the Georgia Supreme Court* held the substantial similarity rule specifically *applies to statistical compilations*. 273 Ga. 454, 455 (2002) (addressing "statistics" and holding "[i]n products liability cases, the 'rule of substantial similarity' prohibits the admission into evidence of other transactions, occurrences, or claims unless the proponent first shows there is a 'substantial similarity' between the other transactions, occurrences, or claims and the claim at issue in the litigation.").

Chrysler, as the profferor of the "statistical analyses" it wants to submit through Taylor, must prove that each wreck used for its "statistical analyses" was substantially similar to the subject wreck. As will be shown, Chrysler not only cannot do that; Chrysler has made no attempt to do that. Chrysler's proffer of Taylor's testimony is indisputably infirm, and the testimony is inadmissible.

Chrysler may attempt to argue that the standard for admissibility is different for plaintiffs and defendants in products liability cases. Other automakers have trotted out such arguments in the past – unsuccessfully. There is no basis for such an argument. The burden is the same for both sides. Defendants are not entitled to a separate and more lenient standard for the admissibility of other incident evidence. *See* Order, *Hatfield v. Ford Motor Co.*, Civ. A. No. 77339 (Bibb State Ct. Aug. 20, 2013) (holding the substantial similarity rule "applies to the proponent of the evidence in question, whether it be the Plaintiffs or Defendant Ford.") (citing *Ray*, 237 Ga. App. at 317; *Crosby*, 273 Ga. at 455; *Volkswagen of Am., Inc. v. Gentry*, 254 Ga. App. 888, 895 (2002); *Stovall*, 270 Ga. App. at 792-793) (Order attached as Ex. 5). Whether it's the plaintiff or the defendant, substantial similarity must be proved before the party can talk to the jury about other wrecks.

2. Taylor has admitted his statistical compilations are not limited to substantially similar other incidents.

Chrysler cannot meet the substantial similarity burden – and has not even tried to do so. When asked about "substantial similarity" at his deposition, Taylor admitted he had done *nothing* to make certain the wrecks included in the statistical analyses were substantially similar to the subject wreck. Taylor Dep., 155:03-09; 154:09-10; 155:03-09 (Ex. 3). Taylor admitted he did not "make any findings in regards to substantial similarity." *Id*. at 154:05-06. He also admits he made "no effort [sic] to look at substantial similarity." *Id*. at 200:12-24.

Chrysler did not even direct that Taylor attempt to make sure the statistical analysis he is proffered to testify about complied with the substantial similarity requirement:

> Q: *Is each of the wrecks* you studied when you prepared the statistical analysis that you prepared for Chrysler to use with respect to the NHTSA investigation *substantially similar to the subject wreck in this case?*
>
> A: I did not make any findings in regards to substantial similarity.
>
> Q: Is that a "yes," or a "no," or "I don't know"?
>
> A: *I wasn't asked to do that*, so I haven't made that determination.
>
> Q: Does that mean you don't know?
>
> A: I guess you would say I don't know, but...
>
> Q: That's what I would say.
>
> A: Well, the point is that *since I wasn't asked to do it, I haven't done it, and I don't know if any are substantially similar.*

Id. at 153:25-154:16 (emphasis added). Asked the same question again, Taylor answered: "*I haven't done that study, so I don't know the answer to that question*." *Id*. at 155:03-09 (emphasis added).

Chrysler's failure to even attempt to satisfy the substantial similarity requirement is particularly noteworthy because this particular automaker witness, Taylor, is frequently

designated by automakers to give testimony about other similar incidents and whether other wrecks are substantially similar to the subject wreck. *See* Taylor Testimony History, Ex. 15 to Dep. (Ex. 4) (including notations of "OSI" next to the cases in which Taylor has served as an OSI expert). He knows how to do that substantial similarity analysis. Chrysler simply chose not to have him do so, with full knowledge that Georgia law required that he do so.

Chrysler's proffer of "statistical analyses" through Taylor is contrary to Georgia law and Taylor's testimony is inadmissible. *Crosby,* 273 Ga. at 455 (2001).

3. Taylor has admitted his statistical compilations include *dissimilar* incidents.

Taylor has admitted the statistical analysis Chrysler would have him testify about are based upon dissimilar wrecks. For example, Taylor did not limit his analysis of the FARS database to car wrecks involving rear impacts (Taylor Dep., 205:24-206:02 (Ex. 3));[5] rear impacts where the occupant was restrained (*id.* at 206:03-09);[6] rear impacts resulting in a fire (*id*. at 206:10-14);[7] or rear impacts with fire as the most harmful event. *Id*. at 206:15-17, 23-24; 207:07-09.[8] Taylor's analysis also included vehicles having both rear and midship fuel tanks.[9] *Id*. at 207:17-21.

Chrysler is also attempting to proffer, through Taylor, statistical testimony about dissimilar vehicles. The statistical analyses which Chrysler seeks to proffer through Taylor

[5] *See also* Taylor FARS 1998-2010 Analysis, Ex. 10 to Dep. (Ex. 6). This exhibit is Taylor's original statistical analysis he prepared specifically for the above-styled case. Taylor Dep., 111:21:112:01 (Ex. 3). According to Ex. 6 (Ex. 10 to Taylor Dep. at 2 and 15), Taylor's analysis included side crashes with "impacts at clock points 2-4 or 8-10."
[6] *See generally* Taylor FARS 1998-2010 Analysis, Ex 10 to Dep. (Ex. 6).
[7] *See id*. at 4, 5, 8-10, 17, 18, 21, 22, 23.
[8] *See id* at. 4, 5, 7-11, 17, 18, 20, 21, 23, 24.
[9] *See also* Taylor List of Opinions, Ex. 11 to Dep. at 2 ("Included SUVs . . . with mixed tank locations") (Ex. 7). This exhibit is a summary of Taylor's opinions he provided to Plaintiffs' counsel during his deposition. Taylor Dep., 112:08-10 (Ex. 3).

compares the "subject vehicle"[10] to other SUVs.[11] That analysis includes wrecks involving dissimilar vehicles in all accident modes, *and* without regard to whether fire was the most harmful event in the incident. Wrecks, and statistical "analysis" thereof, involving dissimilar vehicles is not admissible under Georgia law. "In order to show substantial similarity, the [proponent of the evidence] must come forward with evidence (1) that the products involved in the other incidents and the present incident shared a common design and manufacturing process; (2) that the products suffered from a common defect; and (3) that any common defects shared the same causation." *Ford Motor Co. v. Reese*, 300 Ga. App. 82, 89-90 (2009).

4. Other courts have excluded statistics for failure to meet the substantial similarity standard.

Other courts have recognized statistical analyses must satisfy the substantial similarity rule and have excluded statistical analyses that do not satisfy that requirement. *See Hockensmith v. Ford Motor Co.*, No. 03-13729, at *9-11 (11th Cir. Aug. 5, 2004) (finding statistical evidence similar to that offered in this case inadmissible without a showing of substantial similarity and applying requirements of "substantial similarity" equally to both sides); *Hatfield v. Ford Motor Co.*, Civ. A. No. 77339, at *2 (Bibb State Ct. Aug. 20, 2013) (finding same); *Bishop v. General Motors Corp.*, No. CIV-94-286-B (E.D. Okla. Aug. 30, 1995) (finding same); *Dimaso v. Ford Motor Co.*, No. 99A-6172-6, at *5-7 (Ga. State Ct. July 1, 2003) (finding same); *Stewart v. Pevey*, No. 1B01CV229 (Bulloch County. Sup. Ct. April 7, 2003) (finding same); *Lajeunesse v. Ford Motor Credit Co.*, SC GIC 755577 (Cal. Sup. Ct. Jan. 7, 2002) (finding same); *Wagner v. General Motors Corp.*, No. 60-06-02 (Cal. Sup. Ct. May 24, 1994) (finding same); *Flax v.*

[10] The "subject vehicle" in Taylor's statistical analysis varies. For work done prior to this litigation, Taylor included (1) the WJ and ZJ Jeep Grand Cherokees; (2) the 1993-2001 Jeep Cherokee (or XJ platform); and (3) the 2002-2007 Jeep Liberty platform (or the KJ platform) as the "subject vehicle." *See, e.g.* FARS Data Analysis SUVs and Cars (CGLLC042409-29), at 4 (Ex. 8). Now that he is in litigation, Taylor – for the first time – asserts that the "subject vehicle" should only be the WJ platform. *See* Taylor File Binder, Ex 1 to Dep. at 982 (Ex. 9).
[11] *See also* Taylor FARS 1998-2010 Analysis, Ex. 10 to Dep. (Ex. 6).

DaimlerChrysler Corp., No. Civ. A. 02C-1288 (Tenn. Cir. Ct., Davidson County, Nov. 2, 2004) (finding same) (all orders are collectively attached as Ex. 10). These courts have analyzed statistical compilations of other accident data and have concluded such data should be excluded for failure to prove substantial similarity.

C. TAYLOR'S PROPOSED TESTIMONY IS IRRELEVANT AND IS AN ATTEMPT TO MISLEAD AND CONFUSE THE JURY.

1. Taylor's statistical analysis is irrelevant.

The defect question in this case is whether the fuel system on the subject vehicle is defective, and more specifically, whether the rear-mounted location of the gas tank is a defect. The evidence about that question is clear: Chrysler's own engineer Estes admitted under oath that gas tank, located 11" from the rear of the car and hanging down 6" below the bottom of the car, was "vulnerable to rear impact." Estes Dep., 67:02-11 (Ex. 11). Estes further admitted that the rear 24" of the car were in the "crush zone." *Id.* at 47:16-21. *That means Chrysler deliberately put the gas tank in the crush zone.*

Nobody at Chrysler ever considered statistical analysis, much less that analysis Chrysler attempts to offer through witness Taylor, when making the decision to locate the gas tank at the rear in a known crush zone, or when moving the Grand Cherokee gas tank *away from the rear* to the midships location for the 2005 model year car. There will be no evidence contrary to that statement. More specifically, Chrysler's engineers did not ask Taylor to conduct any statistical analyses when the Jeep Grand Cherokee's fuel system was designed. Taylor Dep., 114:20-116:09 (Ex. 3). Chrysler employed Taylor only *after* the Waldens' Jeep Grand Cherokee had been designed, manufactured, and sold and *after* ODI began its investigation into Chrysler's defective design. *Id*. at 44:21-45:07; 74:18-21. In fact, Taylor has no personal knowledge of *any*

auto manufacturer *ever* consulting the FARS database – upon which Chrysler's statistical analyses are based – when making design decisions. *Id*. at 116:05-09.

Just as statistical analysis was irrelevant to Chrysler's design decisions, it is irrelevant to the question whether the subject vehicle's fuel system design was defective. "Evidence which is not relevant shall not be admissible." O.C.G.A. § 24-4-402. The statistical analysis Chrysler is attempting to proffer through Taylor cannot be relevant to the defect question when Chrysler *did not even know* about that statistical analysis when it made the design decisions (for the obvious reason the statistics did not yet exist).

Taylor admits as much:

> Q: But you don't have an opinion whether or not -- you don't have an opinion as to whether the fuel system on the 1999 Grand Cherokee is defective or not; correct?
>
> A: I don't have that opinion. It's not something you can derive solely from statistical analysis.

Taylor Dep. at 113:10-16 (Ex. 3).

The statistical analysis Chrysler attempts to proffer through Taylor do not "assist the trier of fact" because it does not inform the jury about whether the Jeep Grand Cherokee was defective. Whether other dissimilar vehicles perform better or worse in the same or in other wreck modalities does not tell the jury how *this* vehicle performed or whether *this* vehicle's design was defective.

What Chrysler is trying to do here is to dodge the question whether this fuel system was defective, by having a mini-trial on a separate and irrelevant 'question' – was the vehicle safe *overall*? That is clear from Taylor's testimony. *See id*. at 112:11-113:09 (stating you would look at a statistical analysis to assess overall safety). Overall safety is simply not a "fact in issue" in this case: it cannot be – Plaintiffs' allegations are not based on any question about the

"overall safety" of the subject vehicle. *See City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562 (11th Cir. 1998) (emphasis added).

The statistical analysis Chrysler is attempting to proffer through Taylor (and Marais) have not been accepted by any court, and *were specifically rejected* by the government entity to which they were submitted, NHTSA's ODI. *See* NHTSA Office of Defects Investigation ("ODI") Recall Request Letter (Ex. 12). Chrysler retained Taylor to conduct its statistical analyses because Chrysler's fuel tank location and fuel system design is so obviously defective – as is apparent from the days of the Ford Pinto – that Chrysler knew it could not employ real statistics experts to assist it. Chrysler knew a *scientific* statistical study would have established its design was defective. *See id.* at 2 (noting since the Ford Pinto, automakers "began to adopt designs in which fuel tanks were located in less vulnerable locations than behind the rear axle. Chrysler was certainly aware of the safety benefits of placing the tank in front of the rear axle."); *see also id*. at 3 (Ex. 12).[12]

ODI, like Dr. Hubele,[13] conducted a *scientific* statistical study. *See* ODI Recall Request Letter at 4-6 (Ex. 12). ODI's analysis revealed "there have been at least 32 fatal rear impact fire crashes involving Grand Cherokees resulting in 44 deaths" as of June 2013,[14] and "peer vehicle performance for post-rear impact fires and fuel tank leaks improved over time while Grand Cherokee and Liberty performance actually declined." *Id*. at 5-6. Following its scientific study, ODI concluded: the "1993-2004 Jeep Grand Cherokee (ZJ and WJ) . . . ***contain[s] defects***

[12] "A 1993 study of fire related deaths in rear crashes occurring from 1977 to 1989 concluded that the increasing relocation of tanks ahead of the rear axle had substantial effect on the reduction of these deaths in rear impacts. A survey of 74 vehicles produced during the 2002 and 2003 model years, including 41 passenger cars, 15 SUVs, 8 pickup trucks, 7 mini-vans and 3 full size vans found that 65 vehicles had fuel tanks located ahead of the rear axle, 6 vehicles had fuel tanks over the rear axle and 4 vehicles (Ford Mustang, Ford Grand Marquis/Crown Victoria, Jeep Liberty and Jeep Grand Cherokee) had tanks located aft of the rear axle."

[13] *See generally* Deposition of Norma F. Hubele, Ph.D.

[14] There have been 19 known fatalities in Chrysler's Jeeps with rear gas tanks *since Remington Walden died by fire on March 6, 2012*.

related to motor vehicle safety[;] . . . there is a performance defect and a design defect. The performance defect is that the fuel tanks installed on these vehicles are subject to failure when the vehicles are struck from the rear. . . . The design defect is the placement of the fuel tanks in the position behind the axel and how they were positions, including their height above the roadway. ***The defects present an unreasonable risk to motor vehicle . . . .***" *Id*. at 12. (emphasis added).

Courts analyzing whether to admit supposed expert testimony under *Daubert* and its progeny have described the relevance requirement as one of "fit" – an expert's opinion must be scientifically related to the issues to be considered helpful to the jury. *Daubert*, 509 U.S. at 591, 113 S. Ct. at 2796. Taylor's statistical analysis plainly does not "fit" the question at issue – did Chrysler knowingly manufacture a defective fuel tank system in the Waldens' vehicle? Chrysler did not consider Taylor's statistical analysis when it manufactured the vehicle, and his statistical analysis does nothing to inform the jury about what happened *in this case* or about whether this subject vehicle was defective. Taylor's statistical analysis involve other vehicles, other types of injuries, other types of accidents, and were rejected by ODI. Taylor's testimony regarding this statistical analysis is irrelevant and should be excluded.

2. Taylor's statistical analyses would confuse and mislead the jury and would be therefore be unduly prejudicial.

Georgia law allows for the exclusion of even relevant evidence when the probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury. O.C.G.A. § 24-4-403 ("Relevant evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence."). Because it relies on dissimilar vehicles and dissimilar incidents, the

Taylor statistical analysis is inherently confusing and misleading. To allow introduction of such evidence will permit Chrysler to prejudice and confuse the jury with supposed "statistics" focused not on the defect question in this this case but on Chrysler's dodge – the question of "overall safety." Statistical evidence concerning other dissimilar wrecks in dissimilar vehicles will simply serve to confuse and mislead the jury as to what is truly at issue.

How confusing have Chrysler and Taylor attempted to make their 'statistical' analysis? Here's an example: Taylor claims a vehicle which had *zero* post-collision fuel fed fire events is *twelve* times as likely to be involved in a post-collision fuel fed fire than a Jeep Grand Cherokee he admits had multiple fires during the same period. *See* Hubele Aff., ¶ 11 (Ex. 13). Taylor's testimony should be excluded because it has no probative value at all, especially when compared to its misleading and confusing nature. Taylor's statistical analysis proves nothing about whether Chrysler knowingly designed, marketed, and sold a vehicle Chrysler *knew* "was vulnerable in rear impact" and was susceptible to a post-collision fuel fed fire.

3. Other Courts have excluded other accident statistical evidence as irrelevant and misleading.

Other courts have excluded other accident statistical compilations as irrelevant and/or unduly prejudicial. In *Howard v. Ford Motor Co.*, District Judge C. Ashley Royal excluded statistics from Ford expert, William Wecker – the owner of Marais's firm. No. 5:00-CV-448-3 (M.D. Ga. Dec. 27, 2002) (order attached as Ex. 14). After hiring an independent statistician, the court excluded the statistics because Wecker's failure to use the appropriate error rates made the statistics unreliable, and because the statistics "pose[d] the danger of confusion of the issues and misleading the jury in this case that would substantially outweigh their probative value." ODI Recall Letter at 10 (Ex. 12); *see* FED. R. EVID. 403.

In *Brewster v. Hyundai Motor Co.*, the United States District Court for the Eastern District of Texas excluded the similar "statistical" analysis of an expert witness retained by Hyundai, Dr. Michelle Vogler. No. 2-03-CV-184 (E.D. Tex. July 12, 2004) (order attached as Ex. 15). In excluding these statistics, the court determined the incidents used by the automaker's "expert" were not sufficiently similar to the subject incident, but also determined these statistics were not relevant to the issues in the case. *Id.* at 3. The court relied in part on *Yassin v. Certified Grocers of Illinois*, Inc., 502 N.E. 2d 315 (Ill. App. Ct. 1st Dist. 1986), where the court excluded statistics as irrelevant to the defect question at issue.

In *Katz v. DaimlerChrysler Corp.*, the Fulton County Superior Court found Chrysler expert Jeya Padmanaban's other accident statistical compilations were inadmissible as they would "tell the jury nothing about the safety or the performance of the accident vehicle under the circumstances at issue here." No. 2007 CV 130355, at *1 (Fulton Cnty. Sup. Ct. Aug. 8, 2008) (order attached as Ex. 16). The "statistical analysis [was] simply too broad to be relevant," and "the prejudice and likely confusion generated by such evidence far outweighs the probative value, if any." *Id.*

In *Carr v. Fuji Heavy Industries Co.*, the United States District Court for the District of Alaska excluded Padmanaban's other accident statistical compilations because the compilations were irrelevant to the disputed issues in the case. No. J96-0010-CV, at *7 (D. Alaska Sept. 20, 1999) (order attached as Ex. 17). In *Carr*, Padmanaban attempted to offer statistics to show the overall safety performance of the subject vehicle was similar to peer vehicles. *Id*. at *7. In excluding Padmanaban's testimony, the court reasoned "evidence as to the *overall safety* performance of the accident vehicle and peer vehicles *will tell the jury absolutely nothing* about the safety performance of either the accident vehicle or the peer vehicles under the circumstances

that are at issue here . . ." *Id.* at *5 (emphasis added). Accordingly, the court excluded the statistical analysis proffered by the automaker.

Like the other statistical analyses referenced in the aforementioned cases, the statistics offered by Taylor should be similarly excluded because they offer no assistance in answering the real defect questions and would unduly confuse and mislead the jury.

D. TAYLOR'S STATISTICAL ANALYSIS IS AN IMPROPER ATTEMPT TO INJECT INADMISSABLE HEARSAY.

Hearsay is "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted." O.C.G.A. § 24-8-801(c). Hearsay is not generally admissible. O.C.G.A. § 24-8-802. Taylor's proposed testimony about statistical summaries of dissimilar wrecks relies upon ***multiple*** layers of inadmissible hearsay. The underlying wreck information Taylor used (1) contains statements made by third parties; and (2) is offered for the truth of the matter asserted – *i.e.*, what actually occurred in the car wreck. In other words, the database entries themselves are hearsay. Further, to the extent the investigator included statements from witnesses or other third parties about what happened in the car wreck, Taylor is relying on multiple layers of hearsay. Evidence of other dissimilar incidents and the investigators' opinions about them constitute unauthenticated hearsay containing opinions and conclusions of persons not before the Court.[15]

While O.C.G.A. § 24-7-703 will allow an expert to rely on hearsay, so long as the hearsay is the type reasonably relied upon by other experts in the field, an expert may not disclose hearsay to the jury unless the Court determines the probative value substantially

[15] The information contained in the FARS database is based on, for example, the following: police reports, death certificates, state vehicle registration files, coroner/medical examiner reports, state driver licensing files, hospital medical records, state highway department data, emergency medical services reports, and vital statistics. FARS Analytical User's Manual available at http://www-nrd.nhtsa.dot.gov/Pbs/811693.pdf.

outweighs its prejudicial effect. *See Raines v. Maughan*, 312 Ga. App. 303, 307 (2011) ("inadmissible facts and data upon which an expert relies are not rendered admissible simply because an expert has relied upon them. To the contrary, such facts and data remain inadmissible unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.") (internal quotations omitted). Taylor plainly cannot testify at all without disclosing the hearsay to the jury – that is all he has to go on.

In sum, Taylor's statistical analysis has no probative value. Taylor's statistical analysis considers (1) other cars and SUVs, (2) in all accident modes, and (3) without regard to whether fire as the most harmful event. His analysis does nothing to inform the jury what happened *in this case*.

E. REAL STATISTICAL EXPERTS DO NOT CALCULATE CONFIDENCE INTERVALS WHEN ANALYZING CENSUS DATA.

Even if Taylor was qualified as an expert in statistical analysis and even if the wrecks he analyzed were substantially similar to the wreck in this case – neither of which is true – Taylor's testimony should be excluded because his testimony is not "the product of reliable principles and methods." O.C.G.A. § 24-7-702(b)(2). The FARS database, maintained by the U.S. Government, is a census – it is not a sample. Yet Taylor has used the 'methodology' of "confidence intervals" in analyzing that database, which is something real statistical experts do not do. Taylor did it, of course, to skewer the results in Chrysler's favor, which is probably why ODI wholly rejected his analysis.

A "sample" is defined as "[a] portion, part, or piece taken or shown as a representative of the whole." THE NEW INTERNATIONAL WEBSTER'S COMPREHENSIVE DICTIONARY OF THE ENGLISH LANGUAGE 1113 (1996 ed.). In other words, "you don't have all of the data" in a sample. Hubele Dep., 148:07 (Ex. 18). With a census, on the other hand, there is no "underlying

sampling going on with the data" because there "is no unobserved data." *Id*. at 37:08-15; 146:19-147:02; 148:18-19. In other words, you have all of the data in a census. Hubele Aff., at ¶ 4 (stating "there is no *un-sample population* in FARS") (emphasis original) (Ex. 13). According to "Dr. Mary Natrella, a well-respected statistician with the National Bureau of Standards in the early 1960's, . . . '[i]f we were willing or able to examine an entire population, our task would be merely that of describing that population, using whatever numbers, figures, or charts we care to use.'" Hubele Aff., ¶ 7, fn. 3; *see also* ¶ 8 ("if we have all the data, our task is merely to compile charts and draw conclusions, independent of any statistical inference models.") (Ex. 13).

Confidence intervals, based on *sampling theory*, Hubele Dep., 148:13-14 (Ex. 18), allow statisticians "to construct a way to make an *inference* on that data which is *unobserved*." *Id*. at 148:04-08, 16-18 (emphasis added); *see also* Hubele Aff., ¶ 7 ("[s]tatistical inference techniques are methods used to *infer* information from a sample to the broader, *un-sampled population*.") (emphasis original) (Ex. 13). Confidence "intervals are useful tools for . . . providing reliability information about un-sampled data." *Id*. at ¶ 9. Unlike a sample, there is no unobserved data in a census and, as such, there is no need to calculate confidence intervals. Hubele Dep., 39:25-40:03 (stating it is "not statistically valid" to calculate confidence intervals for census data) (Ex. 18); *id*. at 40:04-10 (stating confidence intervals do not give a statistician a greater sense of reliability for the data and the results obtained by an analysis of census data "because it's not a statistical sample, so it's not useful to use statistical tools on that data for purposes of drawing conclusions or inferences."). It is generally accepted in the field of statistics confidence intervals *should not* be calculated when studying census data. *Id*.at 147:06-14.

Taylor's analyses were based on the Fatality Analysis Reporting system "'a nationwide **census** providing . . . yearly data regarding fatal injuries suffered in motor vehicle traffic crashes.'" *See, e.g.*, Hubele Aff., ¶ 1 (emphasis added) (Ex. 13). Even though Taylor admits it is not necessary to apply statistical inference techniques, such a confidence intervals, Taylor "calculated rates from FARS and confidence [intervals] on those rates using FARS data." Taylor Dep. 9:12-16; 97:10-13 (Ex. 3). Taylor did so despite admitting that there are no a standard error tables in FARS from which to calculate confidence intervals, *id*. at 135:24-136:07, and, in over 500 pages, the FARS Analytical User's Manual does not provide any guidance on how to calculate confidence intervals. *Id*. at 136:15-137:19.[16] The reason for that is self-evident: FARS is a census, and use of confidence intervals is inappropriate – indeed, sort of silly – when working with a census.

By way of illustration, what Taylor has done by using confidence intervals with the FARS census can be compared to using confidence intervals the day after a presidential election, in order to study election results *to predict* who won the election. Hubele Dep. 40:11-25 (Ex. 18). But you don't need a prediction after the election, and you don't need confidence intervals to make the prediction. Like FARS, the results of a presidential election results are a census: all of the votes are tallied and a winner is determined. *See Id.* 40:21-25 ("It's over. That's who got elected. There's no sampling involved here. This is the data. This is all the data. This is a census.") (Ex. 18). The winner is determined by tallying a known quantity of votes based on the total number of votes which were cast.

[16] In contrast, the National Automotive Sampling System Crashworthiness Data System ("CDS") and General Estimates System ("GES") – which are the subject of Marais's analyses – are samples (Taylor Dep., 48:22-49:01, Ex. 3)), and have entire sections within their respective user manuals which discuss and explain how confidence intervals should be constructed when using those databases. *Id*. at 138:01-05; 138:08-15.

Taylor "treats the census FARS-registration rates as sample estimates and constructs confidence intervals on his rates" – real statistical experts would not do this. Hubele Aff., ¶ 10 (Ex. 13). Taylor's testimony should be excluded under Rule 702.

F. EVEN IF IT WERE PERMISSABLE TO USE CONFIDENCE INTERVALS TO ANALYZE THE FARS CENSUS, TAYLOR DID IT WRONG.

A purported expert's opinion is not admissible unless he "has applied the principles and methodology reliably to the facts of the case . . ." O.C.G.A. § 24-7-702(b) (3). Even if some real statistics expert were to opine that use of confidence intervals in analyzing a census was appropriate, Taylor's use of confidence intervals is inherently – and deliberately – misleading. To put it in statistics-speak, "Taylor's confidence intervals are extremely different in size and therefore give the misleading conclusion that the rates have different reliability." Hubele Aff., ¶ 10 (Ex. 13). Three examples from Taylor's "statistical" analyses are instructive.

One of Taylor's graphs – Figure A to Hubele Aff. (Ex. 13) – represents his analysis of "rates for fatal rear impact vehicles as the most harmful event." Hubele Aff., ¶ 10 (Ex. 13). According to Figure A, Taylor's confidence intervals for the Ford Explorer and Isuzu Trooper are 0.24 and 4.4, respectively. *Id*. at ¶ 10. "In other words, the Isuzu Trooper confidence interval is more than 18 times larger than the Explorer's [confidence interval]." *Id*. at ¶ 10. Such a large disparity implies the rate of occurrence for the Isuzu Trooper for fatal rear-end wrecks where fire is the most harmful event "is less reliable than the Ford Explorer." *Id*. at ¶ 10. This is false since the rates in the FARS database – a census database – "are equally, highly reliable." *Id*. at ¶ 10, Figure A; *see also* ¶ 4 ("Census counts all have the same high reliability).

Furthermore, three additional graphs produced by Taylor – Tables B-i, B-ii,[17] and C to Hubele Aff. (Ex. 13) – reveal that the probability models he used to construct confidence intervals are deceptive and misleading. *Id*.at ¶ 13. According to Table B-i, "the Jeep Grand Cherokee had 5 occurrences of fatal rear impacts with fire as the most harmful event yielding a rate of 0.36 per million-registered-vehicle-years. The Isuzu Trooper had [zero] occurrences and therefore had a census FARS-registration rate of [zero]." *Id*. at ¶ 13. Once Taylor's confidence intervals are applied to Table B-i, as shown in Table B-ii, "[t]he upper value of the Jeep Grand Cherokee confidence interval is 0.8, whereas the Isuzu Trooper's upper value is 4.4." *Id*. at ¶ 13. Even though the Isuzu Trooper had ZERO occurrences, Taylor predicts the Isuzu Trooper's rate of occurrence is "6 times the rate of occurrence as the Jeep Grand Cherokee. . . . This result renders the confidence intervals meaningless and misleading." *Id*. at ¶ 13.

Figure C – Hubele Aff. (Ex. 13) – another graph produced by Taylor, reveals his "probability models lead to more misleading conclusions." *Id*. at ¶ 14. "According to Taylor's upper limit of his confidence interval (with a value of 0.8), the Grand Cherokee has a 5% chance of 4 or more occurrences of fatal rear impact crashes with fire as the most harmful event happening in a million-registered-vehicle-years." *Id*. at ¶ 14. Based to his upper limit of his confidence variable (with a value of 4.4) and his probability model, Taylor "predicts that the Trooper has a 63% chance of 4 or more occurrences." According to Taylor, "a vehicle which had [ZERO] occurrences is predicted to have more than 12 times higher probability of 4 or more occurrences than the Jeep Grand Cherokee. This misleading result is a consequence of assuming an inappropriate theoretical model and treating the census FARS-registration rates as sample statistics." *Id*. at ¶ 14.

[17] Table B-i and B-ii are the same graphs; Bii "shows [Taylor's] confidence intervals super-imposed on [Table B-i]." Hubele Aff., ¶ 13 (Ex. 13).

In sum, Taylor's analysis is pure junk science, which is why both ODI and Plaintiffs' own true statistics expert, Dr. Hubele, both have rejected it out of hand. Worse, Taylor's analysis was junked up in order to mislead.

III. CONCLUSION.

Taylor is not qualified to give expert testimony about statistical analysis; he lacks the requisite education, training, and experience. His "statistical" analyses are based on wrecks that are not substantially similar to the wreck in this case, and compare the subject Grand Cherokee to dissimilar vehicles. His analyses rely upon data that are in turn drawn from rank hearsay. Taylor employs a methodology – calculating confidence intervals – real statistical experts would not use to analyze census data. His calculations tell the jury nothing about the ultimate defect issue in this case. Nothing about Taylor or his analyses have any modicum of reliability. Chrysler's object in calling Taylor to the stand is to evade the defect question, and open the door to a mini-trial on an irrelevant subject, the supposed "overall safety" of the Grand Cherokee.

Excluding Taylor's testimony ensures the courtroom door remains closed to junk science. Plaintiffs respectfully request this Court exclude any testimony from Taylor which involves statistics, statistical analysis, and any related conclusions.

(Signatures continued on next page)

This 23 day of December, 2014.

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