Statistical Science in the Courtroom contains articles written by scientists and professionals from a number of fields including statistics and the law. The 22 chapters of the book cover a number of fields where medical statistics and epidemiology frequently come in to play. Some authors have contributed to several chapters (Drs Gastwirth and Izenman), but generally the book appears as a collection of independent contributions. There is a preface presenting the material followed by a table of contents and short biographical notes on the authors. According to the editor (p. v) the authors “were asked to write about cases in which they were experts or consultants or about areas of the law that rely on quantitative research or how their interest in the use of statistical evidence in legal cases has influenced their research”. For instance, Loue writes (p. 263) “Reliance on epidemiological evidence has become increasingly common in various legal contexts. Toxic tort cases, in which injury is alleged to have resulted from exposure to a specific substance or product, such as Bendectin, Agent Orange, tobacco, tampons and silicon breast implants, constitute one of the most common settings for the use of epidemiological evidence”. Tobacco is obviously a particularly important example and experts on both sides of the Minnesota v. tobacco industry case present their views in two separate articles. In addition, various papers deal with discrimination against minorities, product liability and environmental regulation. A particularly large bulk of the books, six chapters, discusses DNA evidence.

Professor Gastwirth encouraged the authors to present personal views. The personal perspective is particularly present in the papers by Geisser and Weir. The former of these authors has almost always been called by a public defender’s office while Weir (p. 87) writes “From 1990 to mid-1997 I testified for the prosecution in twenty seven criminal trials and for the plaintiff in one civil trial, the most notable being the two trials involving football star O. J. Simpson. I ended my testifying days after a case in Colorado when the defence objected that my use of Fisher’s exact test was hearsay and that the prosecution needed to call Mr. Fisher to the stand”. Geisser, on the other hand has something to say of the prosecutor (p. 72): “ He is often hostile, not very knowledgeable about statistical issues, determined either to trip you up, make you appear foolish, or highlight any contradictory statement made in all the years you have made statements on almost any topic”. Statements like the above seldom find their way into the traditional scientific journals. But then, scientific papers are generally not as fun to read as the above book chapters. The last quote inspires me to say something trivial, but not always explicit in papers and talks dealing with forensic statistics: The law and court proceedings are not as international as statistics and mathematics. The frustrations conveyed by Geisser and Weir may reflect aspects of the legal system in the US. Obviously, there are other countries where statisticians are likely to make similar experiences. However, in other parts of the world, experiences like the ones underlying the mentioned quotes, may be less likely. Whether that is necessarily bad or not is an entirely different matter.

For a statistician working in court surroundings, communication is particularly challenging. Janet Chaseling writes of statisticians (p. 106): “… they must accept that the first problem to overcome relates to the disease within society known as mathphobia”. The author has obviously done a lot to overcome the mentioned disease; her paper deserves to be read also by readers not particularly interested in courtroom applications. Her legal examples dealing with basic statistical models should serve equally well in the classroom.
I’m enthusiastic about the book and my objections are minor. A collection of papers from 1986, “Statistics and the law” edited by DeGroot, Fienberg and Kadane contained several discussion papers as opposed to the present volume. Apparently some planned discussion have not materialized for various reasons; the opposing expert declined (p. viii) or a statistical expert was discouraged by lawyer (p. xi). The book deserves to read and discussed widely.

Thore Egeland