

Book Review

Rune Elvik and Truls Vaa (eds.) *The Handbook of Road Safety Measures*¹

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What effect does a road safety measure have on the number of casualties, what are the costs, and are there any side effects to be mentioned? The Norwegian researchers Rune Elvik and Truls Vaa have tried to answer these elementary questions. They have done this in a handbook of more than 1000 pages. The authors themselves have admitted that "handbook" is not really the right name, because in a handbook you expect to find instructions or advices about how to draw up and implement the best road safety measures. The authors admit that an encyclopaedia or catalogue is a more accurate name.

The book consists of four parts: I Introduction, II General-Purpose Policy Instruments, III Specific Traffic Safety Measures, and IV Vocabulary and Index. The core of the book is part III that describes 124 road safety measures in a structured way. A picture evolves of the effectiveness of a measure and an attempt is made to estimate side effects (on mobility and the environment) and costs, and to conduct a cost-benefit analysis. The amount of attention paid to each measure is partly dependant on its popularity and the amount it has been researched.

Elvik and Vaa try as objectively as possible to judge and justify their choice from the literature that is given a place in this book. It will come as no surprise that English language literature and Scandinavian research is over-represented. I think that an interesting invitation is to give their book to researchers working in/with German, French, and Spanish, to see if this literature leads to other conclusions than "their" chosen research reports.

The effects of measures are judged using evaluation studies. Such studies sometimes show methodological errors that Rune Elvik, as editor of Accident Analysis and Prevention should know as no other. Time and again Elvik indicates that he is very well aware of research methodology and the traps that researchers can fall into. For good reason "The Iron Law of

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Evaluation Studies" is paraded in this book. *"The better an evaluation study is technically, the less likely it is to show positive program effects"* (p.113). In this book they pay attention to the quality of evaluation studies, and the authors' reputation gives an adequate guarantee that the wheat has been separated from the chaff. All evaluation studies about a particular subject are included in a meta-analysis model. A meta-analysis is to be preferred above an ordinary literature study because not every study is worth the same, and is weighed according to robustness. A weak point of these results (not so much of the book itself but of the conducted studies) is that, anyway, the theoretical foundation of evaluation studies is sometimes none too firm. This means that the book seldom offers an answer to the question of why the observed effects have occurred. Neither is much attention paid to the phenomenon of novelty effects (large in the beginning but disappearing later), which are well known in this field. However, the way in which insight is provided into all possible problems associated with evaluation research makes this book a must for (young) road safety researchers! This implies that part I, in which many aspects of importance for road safety research are gone into in greater detail, is possibly the most interesting part of this book.

What is unfortunate is that no road safety programmes, in which various measures are packaged and simultaneously implemented, are dealt with in this book. It is particularly interesting to know how combined measures strengthen or weaken each other. This is a pity because it is a normal policy practice to design packages of measures (e.g. police enforcement plus campaigns about it, the introduction of 30 km/h zones plus creating public support for them, etc.). Maybe for the next edition?

I regard part III (Specific Traffic Safety Measures) as a starting point, and not a finishing point for readers who want to study a particular road safety measure in detail. It would be irresponsible to automatically adopt them for their own traffic context without first customizing carefully about the results presented. I think that the presented results do not form in isolation, in whatever country, a sufficient basis for policy preparation about a concrete measure. It is an excellent starting point for a discussion between policy makers and researchers. This implies that neither is this book suitable for lazy readers. I hope they have already given up, having been put off by this book's great length.

This handbook offers an enormous amount of information for the interested reader. Furthermore, the reputation of the authors and their approach in this book ensures that this book is a valuable addition to worldwide road safety research. As far as I know, this book has no competitor, and I hope that this book will find its way to many researchers and those responsible for drawing up and implementing (effective and efficient) road safety policies. Is there is sufficient scientific evidence in the literature for a particular measure? These are: the driving course, a demerit points system, 30 km/h zones, police enforcement activities, periodical car inspection, roundabout construction, and 118 other measures. There is the beginning of an answer to be found in this book. A question that with the knowledge in this book can be answered is, whether a particular measures deserves support because it is "evidence-based" or "research-based". This handbook is extremely welcome and actually indispensable for such discussions. This handbook can be very helpful for discussions between policy makers and researchers and, as such, contribute to road safety policies being of a higher quality.