

Mr John G. U. Adams (Geography Department, University College London): Professors Harvey and Durbin conclude that when all categories of road user are considered the net reduction in fatalities attributable to the seat belt law is about 200 per year (from 5934 in 1982). There are four reasons for supposing that they have over-estimated the beneficial effect of the law.

Their estimate of the increase in pedestrian fatalities (8%) and cyclist fatalities (13%) is based on the modelling of *all* such fatalities. In their Report, but not their paper, they estimate the increase in numbers of pedestrians and cyclists killed by cars and vans at 13% and 40% respectively. The number of pedestrians and cyclists killed by HGVs and PSVs decreased.

The serious injury data and the fatality data tell different stories. Durbin and Harvey prefer the serious injury data because the numbers are much larger. However the fatality data are much more accurate. For pedestrians and cyclists (categories not covered by the Rutherford study) injuries are grossly under-reported. The definition of serious injuries is acknowledged by the BMA to be so broad as to be virtually useless.

In 1982 the percentage of dead drivers with blood alcohol levels above the legal limit increased from 31% to 36%. All of the increase in fatalities in 1982 occurred during the "drink-drive hours" (2200-0400). Thus the increase in fatalities in 1982, when some of their models show signs of breaking down, could have been an alcohol effect. In 1983 the percentage of over-the-limit dead drivers fell back to 31%. The

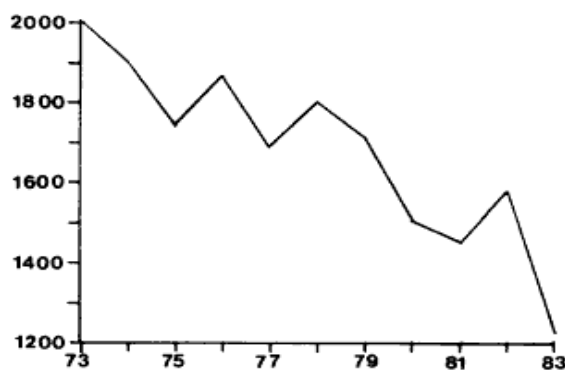


Fig. D3. Road accident deaths, GB, between hours 22.00 and 03.59.

reduction in fatalities in 1983 during the "drink drive hours" was 23%, and in all other hours only 3%. Durbin and Harvey attribute *all* of the decrease in front seat car and van fatalities in 1983 and 1984 to the belt law. Their model includes no alcohol variables, and they allow the reduction in drunken driving in 1983 credit for saving not a single life.

Durbin and Harvey made no attempt to place the British evidence in the context of evidence from other countries which have passed belt laws. Because of the possible effects of innumerable confounding variables, the results from one country in isolation may be inconclusive. But there is no clear evidence from any country of a net beneficial effect attributable to a belt law (Adams, 1985).

If one trusts the accurate numbers (fatalities) rather than the large numbers (serious injuries), if one isolates the pedestrians and cyclists killed by cars and vans, if one allows the reduction in drunken driving a reasonable share of the credit for the decrease in fatalities in 1983, and if one considers the evidence from other countries, the balance of Durbin and Harvey's evidence tilts strongly in favour of the conclusion that there has been no net life-saving benefit attributable to the belt law — only a shift in the burden of risk from the best protected to the most vulnerable road users.

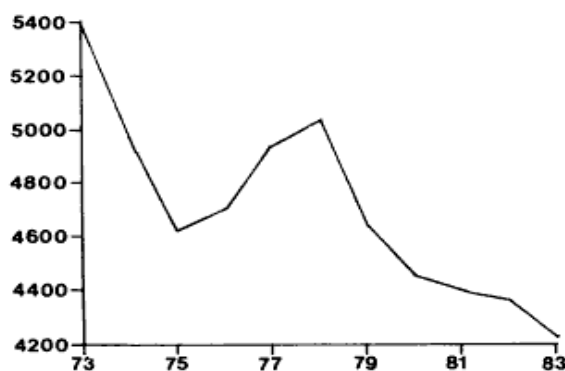


Fig. D4. Road accident deaths, GB, between hours 04.00 and 21.59.