The highway engineer is constantly evaluating highway design features, taking note of failures, and striving to produce more efficient, longer lasting, safer, and more economical highways. A variety of median types with varying widths can be found today. A study of medians was conducted based on accident experience to provide a means for determining the optimum median design from the standpoint of safety.

The median types currently in use in Kentucky include:
1. Depressed medians -- all interstate,
2. Deeply depressed medians -- Mountain Parkway (3:1 slopes), Bluegrass Parkway (4:1 slopes), and
3. Raised medians -- Kentucky Turnpike, Western Kentucky Parkway.

Four years of accident reports for these roadways were obtained from state police files and subjected to statistical analyses.

This study differs from previous median accident studies in three significant ways. The length of road sections analyzed were much longer. The roadways were all rural, four-lane, controlled access facilities. All design features, except for the median, were similar (i.e. full shoulders, 24-foot pavements, etc.). Because of the larger sample sizes and the better control of other roadway variables, the results of this study may be more statistically reliable and enlightening than previous studies.

Findings to date indicate:
1. A definite relationship between the width of the medium and accident rate; i.e. wider medians are safer medians,
2. The deeply depressed median types have a disproportionately severe accident record, and
3. Separate roadway sections of interstate highways have a much worse accident record than typical sections of the same roads. Separate roadway sections are where traffic in opposite directions is separated by a median of varying width.

With present knowledge of vehicle behavior on slopes, encroachment characteristics, and accident experience, the safest median for any given conditions can be designed.
Figure 45. Median Accident Rate versus Width of Median Illustrating the Poor Accident Experience of 36-Foot, Deeply Depressed Medians

Figure 46. Comparison of Typical Sections of Interstate Highway with Sections where the Roadways are Independent