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Analysis of Crash Patterns at Signalised Intersections

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Title: Analysis of Crash Patterns at Signalised Intersections

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Source: This paper presents the results of a project undertaken as part of MUARC's on-going research activity on safety at signalised intersections.

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Abstract:

The paper reviews the crash patterns evident at signalised intersections in Victoria, and shows that such crashes are of four main types - right through, rear end, adjacent approaches, and pedestrian crashes.

Crash patterns are then analysed in detail, focussing on the differences in site and operational characteristics between sites with a *high*, *normal* and *low* accident frequency over the 5 years (1987-1991) based upon an analysis of accident data and entering traffic volumes. The study indicated that the majority of the variation in accidents was not explained by traffic volumes, but by other factors. While no single factor was identified which would lead to a dramatic improvement in safety at signalised intersections, a range of measures were identified which would likely contribute to improved safety if applied at specific sites where relevant.

Keywords:

signalised intersections, crash patterns, improved safety, accident frequency, analysis of accident data, MUARC, safety measures, controlled/partially controlled right turns, inter-green times, advance warning, mastarms, skid resistant pavements, sight distance, traffic flow data, site data, clearways.