

A Study on the Reduction of Pedestrian and Bicyclist Accident from Perspective Recent Traffic Accidents

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Traffic accidents in Japan have been decreasing in recent years, and the number of fatalities in 2021 was 2,636, 84% fewer than in 1970, when the highest number of fatalities was 16,765. In 2021, pedestrians and cyclists together will account for about 50% of fatalities, and it is important to reduce the number of accidents involving both of them.

In this paper, I analyzed the circumstances and causes of pedestrian and bicycle accidents. Based on the results of this analysis, I propose changes in the traffic environment and the behavior of traffic participants to reduce the number of both types of accidents by even a single incident.

In child pedestrian accidents, the most common cause of injury is "jumping out of the road," with the largest number of injuries occurring among first- to third-grade elementary school students. In contrast, elderly pedestrians are characterized by accidents caused by "crossing at places without pedestrian crossings" and "crossing immediately in front of or immediately behind a moving vehicle."

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Based on the above analysis of pedestrian and bicycle accidents and the nature of the violations, I have identified desirable behaviors for pedestrians, bicyclists, and drivers as traffic participants. Some of these behaviors include suggestions for additional traffic environment features such as smooth crosswalks and humps.

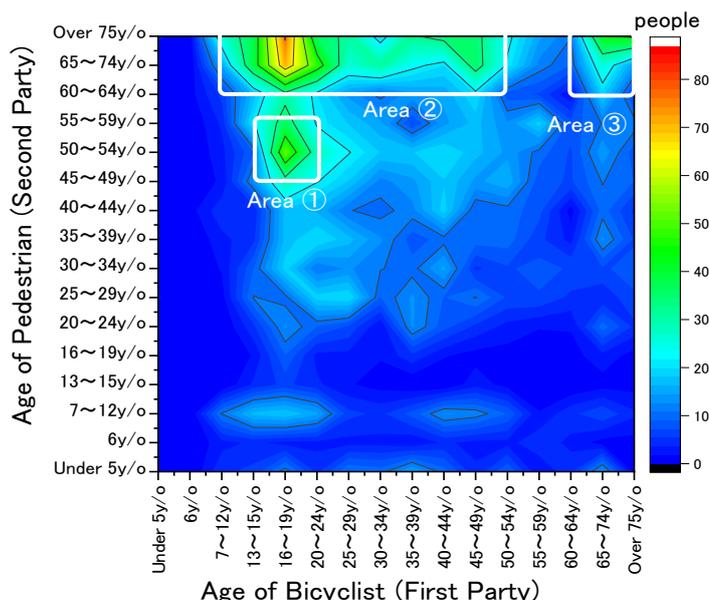


Fig.1 Bicycle-Pedestrian Collisions by Age-group