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Effect of On-street Parking on Traffic Speeds

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Research Objectives

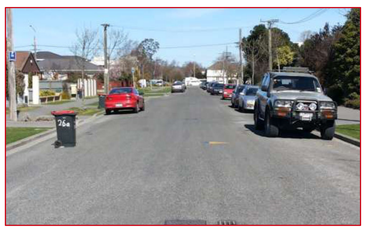
- To study and analyse the impact of on-street parking on local street traffic operations.
- To compare how the vehicular speeds vary for various levels of on-street parking demand in roads of different widths.

Study Method

- 10 Local Streets in Christchurch surveyed

- Free speed measurements using radar gun or tubes
- Speeds monitored at different levels of parking demand

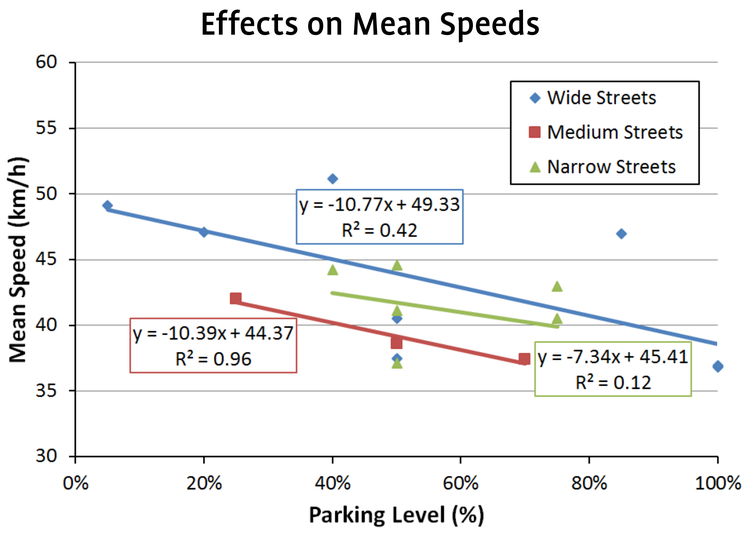
25% Parking



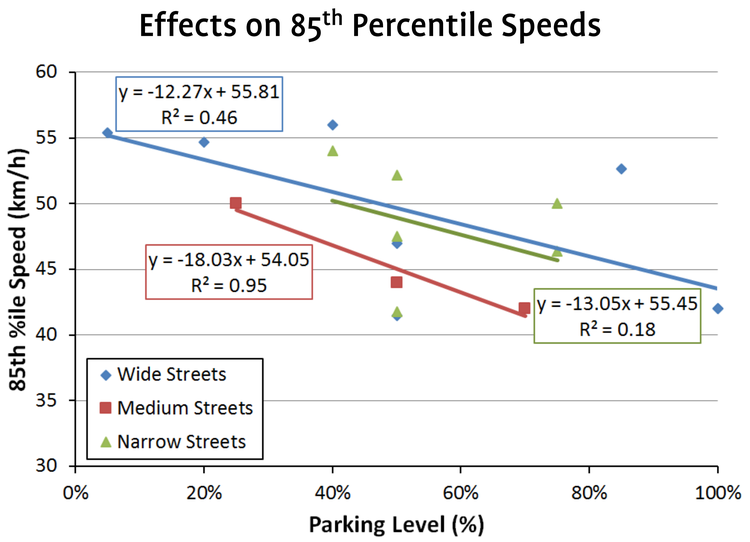
75% Parking

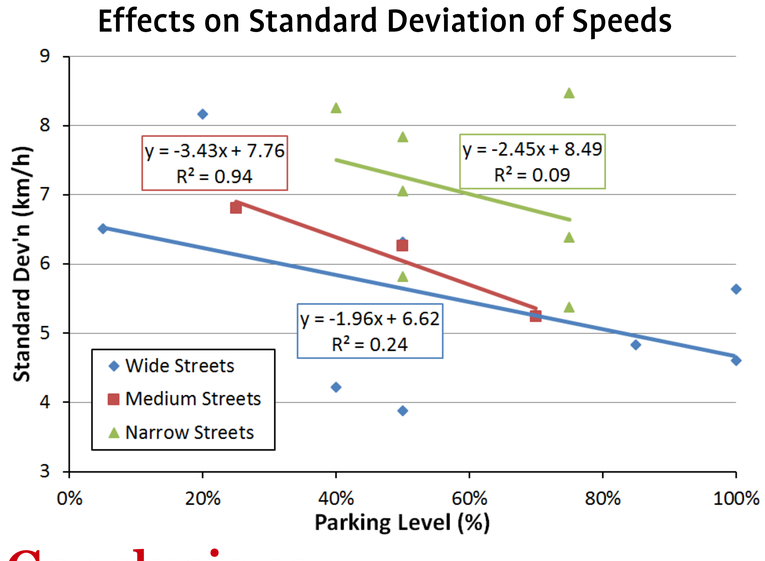
Research Report for details: *PRABURAM, G. (2014). Effect of On-Street Parking on Traffic Speeds. Master of Engineering in Transportation (MET) research report, Department of Civil and Natural Resources Engineering, University of Canterbury*

Results



Traffic speeds generally fell gradually with an increase in parking levels





Conclusions

- On-street parking had a noticeable effect on traffic speeds along local streets (but not meaningful on narrow streets).
- Mean speeds fell at a rate of ~1km/h for every increase of 10% in the parking levels.
- Vehicles travelling at higher-than-average speeds were found to be affected even more greatly.
- The magnitude of fall in speed varied only slightly based on the road widths.

Recommendations

- Policy makers should consider the role of on-street parking as part of their local area speed management strategies.
- Future national guidance on speed management and local area traffic management should highlight the role that on-street parking can play in constraining traffic speeds.
- Increase the number of sites in each width category and choose sites that have a greater number of different parking demand levels to get more accurate/conclusive results.

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