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Permission to Use: May be used but Dr. Bryan Porter must be cited (information above) and an acknowledgement must be given to the Virginia Department of Motor Vehicles for funding portions of this research.

AUTHORS

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OVERVIEW

The research was conducted as part of the *Survive the Drive Coalition* in Hampton Roads. *Survive the Drive* has studied red light running since 1997 from both traditional enforcement and photo enforcement approaches to reducing red light running violations. This work is an extensive evaluation of photo red enforcement in Virginia Beach, Virginia before, during, and after camera enforcement activities.

METHODS

- Eight intersections were studied: 4 in Virginia Beach that would receive cameras; 2 in Virginia Beach that would not; and 2 in Newport News for control.
- We observed one approach to each intersection, straight-moving traffic only. Observations occurred on weekdays between 4:00 and 6:00 p.m.
- There were four project periods:
 - June 2004 - February 2005: before cameras through full implementation of photo enforcement
 - June 2005: the last month of full implementation before the enabling legislation expired
 - July - September 2005: the period immediately after the law expired in Virginia
 - June - August 2006: 1-year follow-up to law expiration

MAJOR RESULTS

- **For locations with cameras:** The relative risk of red light running was 3.22 times higher before cameras than after cameras were deployed. Put another way: red light running events reduced 69% with cameras.
- **Camera vs. Non camera relative risk:** The relative risk of red light running at non camera locations in Virginia Beach was 4.49 to 5.10 times higher than the risk at locations with cameras. The relative risk at Newport News' control locations was 4.91 to 6.34 times higher than at Virginia Beach camera sites.
- **Effects of Law "Sunset":** Red light running's relative risk was 2.63 times higher at the four previously camera-controlled intersections in Virginia Beach in the immediate months after law expiration. The relative risk was 3.59 times higher by one year after law expiration.

CONCLUSIONS

Photo red enforcement in Virginia Beach was a success in reducing red light running. This is consistent with other photo enforcement studies published in the peer-reviewed literature. Further, this is the first systematic effort to document red light running when cameras "go dark" because they have been discontinued--in this case, discontinued through expiring legislation. The increase in red light running that resulted was not unexpected -- drivers responded to the lower likelihood of enforcement consequences. The lower the chance to receive a ticket that cameras once maximized was related to more red light running events.