



SOPHE Unintentional Injury
and Violence Prevention

Impact of Court Appearances for Repeat Speeding on the Behavior of Traffic Violators

A Longitudinal Study of Speeding Violators in Maryland

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Overview

- Background and Research question
- Methods
- Results
- Discussion

Speeding

- Speeding is common:
 - Fifty percent of drivers in the Washington Metropolitan area were traveling at least 10 mph more than the posted speed limit
- Increases risk of getting into crashes
 - Braking distance is increased
- Strongest determinant of whether a crash is fatal or results in serious injury
 - Force of crash is increased exponentially when speeding ($K=mv^2/2$)
 - Counteracts benefits of protective devices

Speeding as a Behavior

Positive outcomes

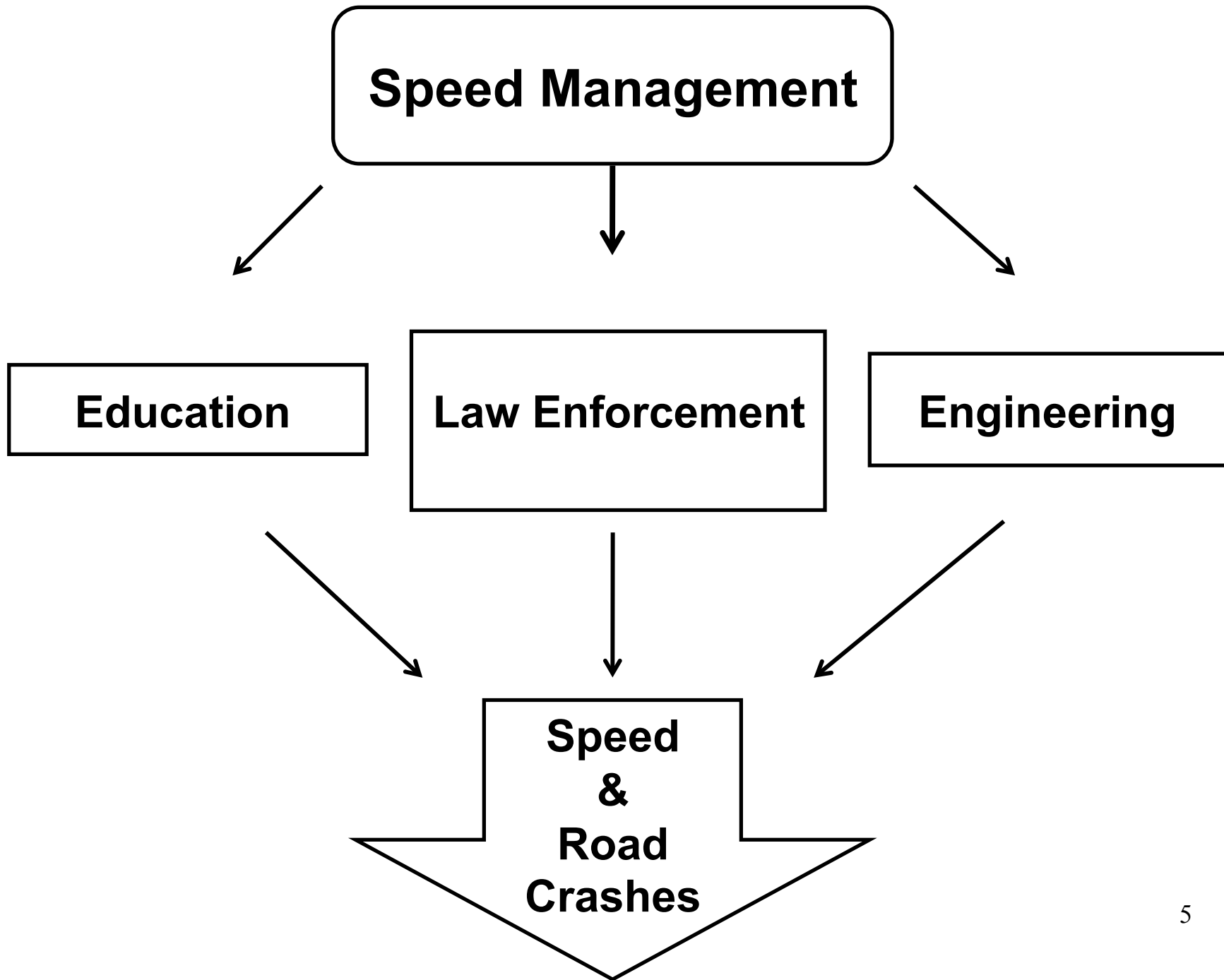
- Getting to the destination faster
- Thrill associated with the speed

Negative consequences

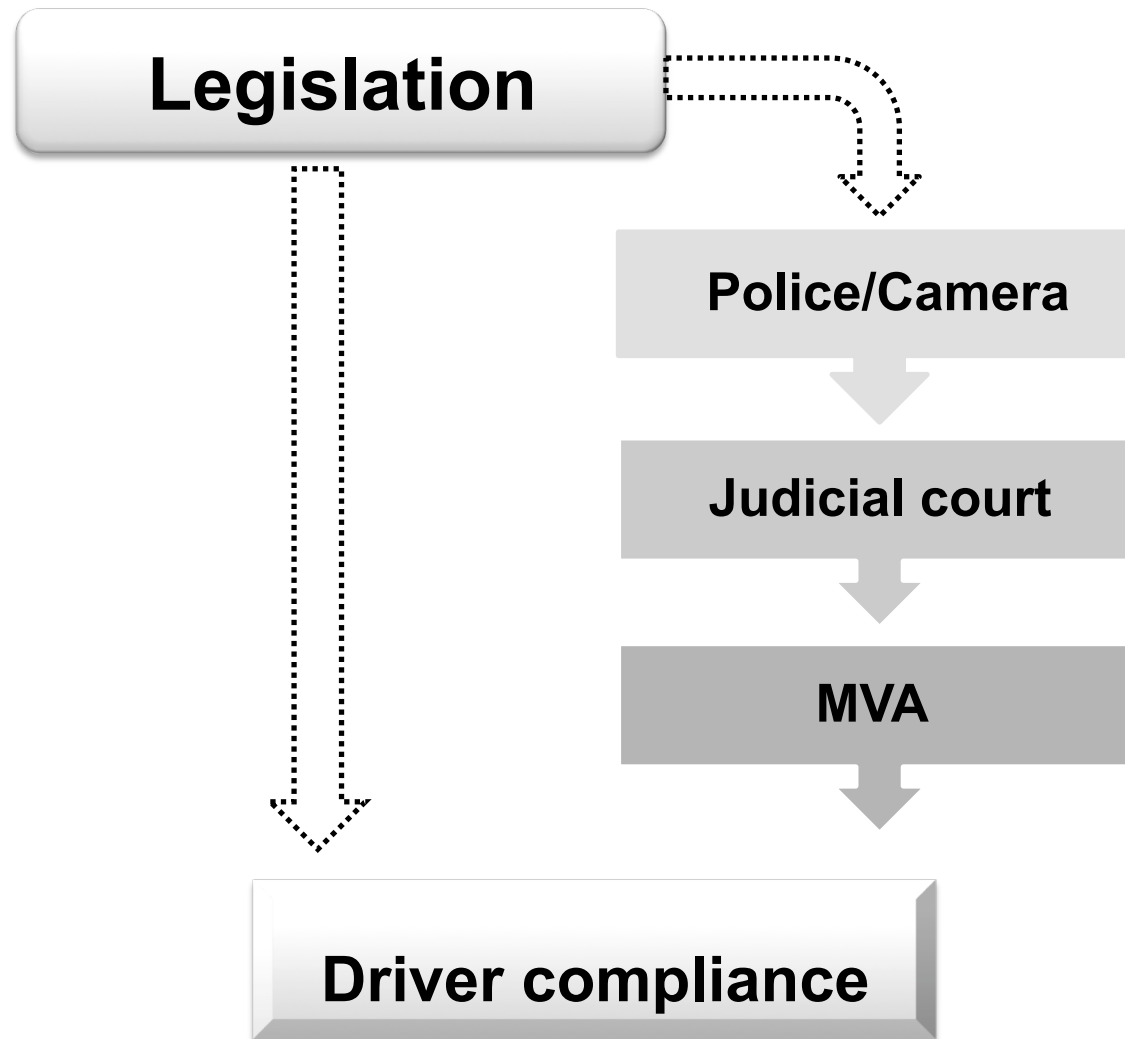
- Getting caught by the police or speeding camera



Speeding is a choice made by a driver



Law enforcement

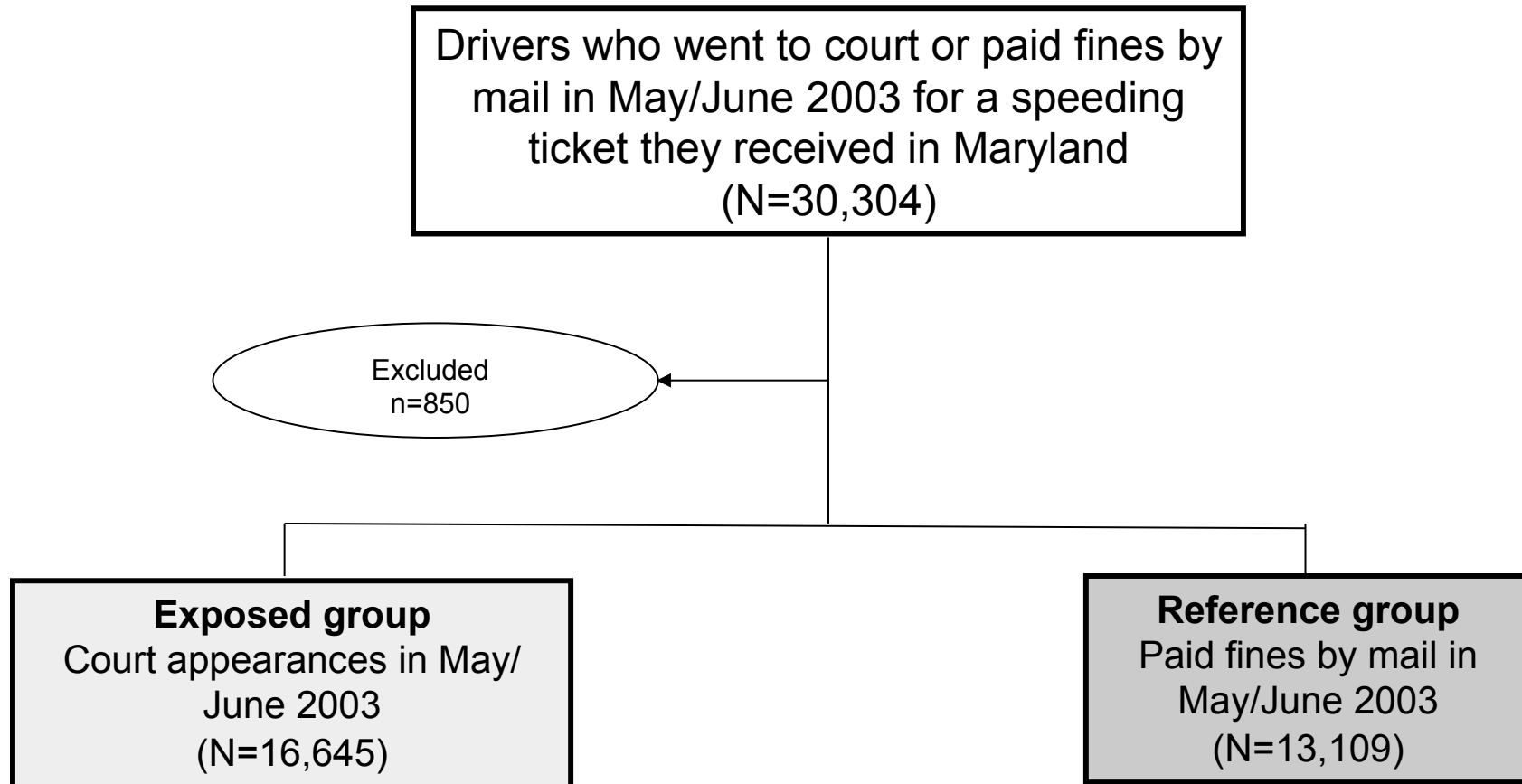


Research Question

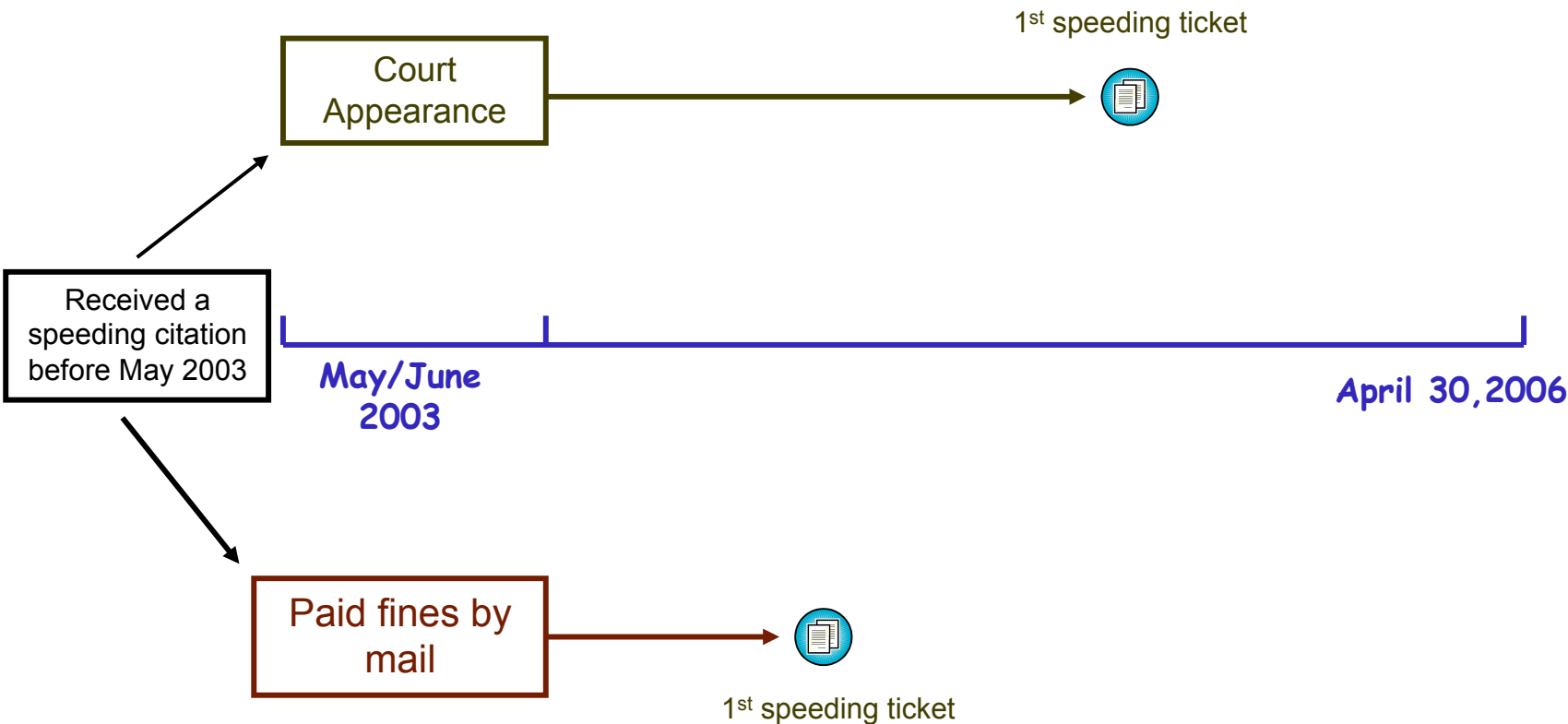
- Does appearing before a judge serve as an effective education strategy to reduce subsequent speeding?

Methods

Study Population



Survival analysis was used to estimate and compare the time until the receipt of the first subsequent speeding citation from July 1, 2003, to April 30, 2006



Results

Characteristics of the study population

Drivers most likely to choose court appearance rather than pay fines by mail

- Younger
- Female
- African American
- Traveling more than 20 mph above the posted limit

Table 1. Characteristics of Maryland licensed drivers who either went to court (CA) or paid fines by mail (PFM) in May/June 2003 following a speeding citation

		Study population		P value**
		Court appearance (n=16,645)	Pay fines by mail (n=13,109)	
		column %	column %	
Prior speeding violations*				<0.0001
	0	3.9	35.7	
	1	63.1	40.7	
	>=2	33.0	23.6	
Prior alcohol-related violations*				<0.0001
	0	96.0	97.9	
	>=1	4.0	2.1	
Prior police-reported crashes*				<0.0001
	0	85.7	89.4	
	>=1	14.3	10.6	

** Chi-square test

* Occurred between May 1st 2000 and April 30th 2003

Table 2. Associations between different predictors and the risk of receiving a subsequent speeding violation within three years after appearing in court or paying fines by mail in May/June 2003 for a speeding citation among Maryland licensed drivers, using Cox-proportional hazard regression model

Predictors		Unadjusted HR	95% CI	Adjusted HR*	95% CI
Main predictor	Paying fines by mail	1	Reference	1	Reference
	Court appearance	1.10	1.06 – 1.14	0.92	0.88 – 0.96
Covariates					
Age	>=50	1	Reference	1	Reference
	40–49	1.41	1.30–1.53	1.35	1.24 – 1.47
	30–39	1.64	1.51–1.77	1.49	1.37 – 1.61
	25–29	1.91	1.76–2.07	1.68	1.54 – 1.83
	21–24	2.40	2.21–2.60	1.99	1.82 – 2.16
	<= 20	2.82	2.62–3.04	2.43	2.24 – 2.63
Prior speeding &	0	1	Reference	1	Reference
	1	1.31	1.24–1.39	1.28	1.20 – 1.37
	>=2	2.31	2.18–2.45	2.00	1.87 – 2.14
Prior police-reported crashes &	0	1	Reference	1	Reference
	>=1	1.48	1.41–1.59	1.20	1.14 – 1.27

*Adjusting for all other covariates in the model

& Occurred between May 1st 2000 and April 30th 2003

Other predictors adjusted for in the final model:

Gender, median household income, local law enforcement level, degree of speeding, number of previous alcohol-related violations

Discussion

Findings

- Drivers who **went to court** had significant **lower risk** of getting a **subsequent speeding citation**

- Drivers with **poor driving history** are **more likely** to choose **court appearance**

Explanations

- Traffic court judges delivered **tailored messages** to the driver on the negative legal repercussions (licensure suspension) and negative economic consequences (increased insurance) of speeding

- Drivers hope to have their penalties reduced
- Drivers may escape legal penalties if the ticketing officer does not show up

Implications

- Require more drivers to go to court?
- Train traffic court judge to identify and target on at-risk drivers
- Develop alternative methods to deliver tailored education message to at-risk drivers

Future studies

- Qualitative study to identify effective messages in traffic court
- Risk-benefit analysis for current traffic court system to evaluate that if the benefits of traffic court outweigh the risk/cost

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