

COSTA RICA'S INTRODUCTION OF PERIODIC TECHNICAL INSPECTIONS: AN ECONOMIC ASSESSMENT

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ABSTRACT

This paper investigates the effects on traffic safety and the associated economic savings of the introduction of RITEVE, the Periodic Technical Inspections (PTI) in Costa Rica. Since there were no national estimates for the costs of crashes in Costa Rica available, this study derives and evaluates in a first step different ways to estimate these costs. Subsequently these are used for a cost-benefit analysis to benchmark the policy decision to introduce periodic technical inspections. The findings show that there are considerable economic gains from having such a system in place with high cost-benefit ratios. The study shall give insights and encourage other countries to introduce or consider such measures as they can be an important step toward more road safety and reduce the cost of crashes for society and the economy.

Keywords: *periodic technical inspection, Costa Rica, cost-benefit analysis, crash-cost estimates, willingness-to-pay*

1. INTRODUCTION

In 2004, the World Health Organization (WHO) wrote in their first *World report on road traffic injury prevention* about the road safety situation in Costa Rica:

"In Costa Rica traffic crashes and their consequences are clearly a public health problem. They are the leading cause of violent deaths, the leading cause of death in the 10-45 years age group, and the third leading cause of years of life lost due to premature death. The cost to the country of traffic crashes amounts to almost 2.3% of the gross domestic product." (World Health Organization, 2004, p. 163)

Against this background, the Costa Rican government introduced a national road safety plan (NRSP) with the objective to reduce the mortality rate by 19% during the period 2001-2005. Actions were taken in the fields of traffic laws, police surveillance, education, infrastructure, and research. In 2002, the periodic vehicular technical inspection (Riteve) was introduced. Immediately after the launch of Riteve, the accident rate dropped by around 40%.

Costa Rica further introduced a new seat belt law in 2004 accompanied by a public awareness campaign and strong police enforcement to increase seat belt usage for drivers. The usage of seat belts increased from 24 percent to 82 percent, and the fatality rates dropped further (FIA Foundation for the Automobile and Society, 2004).

The first objective of the study is to understand the impact, the PTI has on the number of accidents, fatalities and injuries in Costa Rica. This sets the base for the second objective, to assess the benefits and costs of the Riteve-system. To assess these benefits, cost-unit rates for Costa Rica are derived since none have been available.

2. THE RITEVE-SYSTEM

The PTI in Costa Rica is organized as an annual inspection that all vehicles must pass to be driven legally. The vehicle inspection is carried out by a private company, the Riteve SyC, SA. Riteve SyC, SA is part of