

Impact of Institutions on Transport Toll Rate in the U.S

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ABSTRACT

Over one hundred toll authorities own, maintain, and operate toll facilities such as toll roads, bridges and tunnels in the United States. Despite the importance of toll authorities in the toll rate decision making process, only few literature focus on the impact of institutional context on changes in transport toll rate. Using publically available data from the Federal Highway Administration (FHWA) and the American Association of State Highways and Transportation Officials (AASHTO), this paper develops a category of toll authorities to show variation in toll facility characteristics and examines the impact of toll authority on toll rate. Based on the analysis of toll data between 1992 and 2013, toll authorities are categorized into seven groups: state department of transportation; state toll authorities or commissions; city or county governments; city or county toll authorities or commissions; concessions; private; and multi-jurisdictional public toll authorities. It is found that the percentage of toll facilities administered by state authorities or commissions, city or county authorities or commissions, and concessions have steadily increased in the past two decades. This finding is in line with observations in recent years that the structure of transportation decision making is shifting toward decentralized and market-based governance. The variation in facility characteristics is also observed for each type of toll authority in areas of average toll rate, the use of electronic toll collection system, facility type, and the proportion of urban facilities. The impact of toll authority on passenger car toll rate is then estimated using econometrics models. Toll authorities are divided into two broad categories, public and private authorities, for the analysis. It is found that toll rate is higher for toll facilities administered by private authorities compared to that of public authorities. The statistically significant difference in toll rate between private and public authorities becomes larger when unobserved state level impacts are controlled in the model.