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Abstract

Most highways in urban China are tolled to finance their construction. During the eight-day National Day holiday in 2012, highway tolls were waived nationwide for passenger vehicles. We use this to identify the effects of highway tolls on air pollution. Using daily pollution and weather data for 98 Chinese cities in 2011 and 2012 and employing both a regression discontinuity design and differences-in-differences method with the 2011 National Day holiday as a control, we find that eliminating tolls increases pollution by 20% and decreases visibility by one kilometer. We also estimate that the toll elasticity of air pollution is -0.15. These findings complement the scant literature on the environmental impact of road pricing.

JEL Code: H23; Q53; R41; R48

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