

Impacts of vehicle restrictions on urban transport flows: The case of Santiago, Chile

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Resumen

Regression models are employed to quantify the effects of vehicle restrictions on private and public transport passenger flows in Santiago, Chile using trip flow data for cars, buses and the city's Metro rail system. Estimates are derived for the effects of two restrictions: a permanent measure applied from April through August 2008 to vehicles without catalytic converters and additional measures that banned the use of vehicles with catalytic converters between 7:30 am and 9 pm on days declared as environmental "pre-emergencies" due to high air pollution levels. The estimates show that the permanent restriction had no impact on the use of private cars while the additional restriction curtailed their use by 5.5%. Also, on pre-emergency days the flow of passengers to the Metro increased by about 3% while the bus network showed no statistically significant increase. The pre-emergency restrictions thus had an effect on the ridership of the Metro but not on the bus network as alternatives to the use of private cars. (C) 2011 Elsevier Ltd. All rights reserved.

Palabras clave

Palabras clave autor: Transport policy; Metro; Road space rationing; Cross-section; Regression models