

## **A taxation approach to reduce pollution in Auckland**

New research into New Zealand's Regional Fuel Tax (RFT) shows the inequities of its design and considers a fairer way for the government to raise the revenue it needs.

Our recent study attempts to analyse the reasons for the introduction of RFT within Auckland under the Land Transport Management Amendment Act 2018 and its impact.

We found that people living in poorer suburbs bear the brunt of the RFT. That's because they tend to live in areas without easy access to public transport so are more likely to drive more and in cheaper, fuel inefficient vehicles. This finding is supported by the literature, which shows that the effects of congestion on low-income households are more severely regressive and cause significant damage to living standards. The New Zealand Government has also acknowledged the regressive nature of the RFT and its disproportionate impact on lower income groups.

More than three-quarters of New Zealand's electricity is generated from renewable sources, providing Auckland with considerable opportunities to reduce transport emissions by switching to electric vehicles, private or public. Currently, only wealthier people can afford to buy the relatively expensive electric cars, so the number of electric vehicles on Auckland roads is low even though they are exempt from road user charges.

Our research also shows that time lost due to traffic congestion has a significant impact on Aucklanders' productivity. It also exposes them to transport-related air pollution, which in turn exacerbates health and social costs. At the same time, because of their relatively narrow tax base, the existing environmental and fuel taxes in New Zealand fail to achieve the desired effect on congestion costs.

We also found that the way the RFT is distributed means the tax negatively impacts "non-transport fuel users" – for example, those in the farming, construction, and manufacturing industries. For these users, the compliance costs of a rebate system are prohibitively high.

Our study suggests that to mitigate pollution and encourage the uptake of public transport, the Government should consider imposing congestion charges or punitive tolls for single occupancy vehicles. This approach would ensure the "polluter" pays the full marginal cost of their actions. Our research shows the easiest way to reduce single-person car use is to assign the full costs of its use to the car and driver.

Additionally, our research indicates that designing an RFT based on the social cost of "externality" (the direct impact of rising numbers of cars on the road) would undoubtedly make a significant difference to our environment. It would also be an efficient approach from a policy and infrastructure perspective.

A variety of technical solutions exist to make measuring and charging for these externalities feasible. For example, an enhanced road user charging system that captures information on location, time, type of vehicle, and load could allow for more refined pricing across a range of externalities.

A congestion charge would encourage people to seek other options such as carpooling or public transport when travelling into the city. As shown in successful congestion charge schemes in London and Stockholm, public support rests on the availability, affordability, and quality of public transport alternatives.

Further, to ensure that a congestion charge is perceived as fair and equitable, public transport service quality must be enhanced by apportioning part of the revenue collected from the congestion charge. This improvement would, in turn, benefit the poor. Additionally, to address and mitigate externalities, the Government must clearly communicate with the public about their policies around covering external costs and their programme to build Auckland as a sustainable city.

The way we commute is changing. People commute into the city at varied start and finish times; companies are allowing more and more employees to work from home or in a “hybrid” capacity. Yet, many of us continue to pay costs associated with the RFT despite not directly contributing to Auckland’s peak time congestion.

Our research provides much-needed evidence of the inherent inequities of the current RFT design and distribution – and drives home the message that the time for change is now. If you pollute, you pay.

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