

Optimising public transport fares in Sydney



What we were asked to do	<p>The New South Wales Independent Pricing & Regulatory Tribunal (IPART) asked Sapere to estimate the marginal external benefits of rail, bus and ferry services in Sydney, and to apply those results to developing an optimal policy toward public transport fares and Government subsidy of these services.</p>
How we approached the project	<p>The external benefits of public transport and external disbenefits of private car travel are experienced by people other than public transport users. Therefore, it is efficient for the State (on behalf of the non-users) to bear a proportion of the cost of public transport services reflecting these external benefits. Public transport users bear the remaining proportion through ticket purchases.</p> <p>Employing some novel techniques, we were able to make use of the NSW Government's Strategic Travel Model to estimate marginal congestion and pollution costs of car travel in a way that fully takes account of Sydney's road and rail network topology, the actual daily travel patterns of Sydney residents, and time-of-day effects.</p> <p>We also used a variety of techniques ranging from econometrics, to model-building to estimate the marginal costs for each public transport mode.</p> <p>These pieces of empirical work were then combined to determine optimal fare levels. By comparing the optimal fares to actual, it was possible to assess whether existing subsidies to public transport were proportionate to the public benefit they generated.</p> <p><i>continued over</i></p>

Our findings	<p>We found that, for rail in Sydney, the large level of public subsidisation is broadly justified by the significant external benefits it creates. The largest component is congestion relief in peak hours.</p> <p>For buses, the moderate level of public subsidisation is justified by the external benefits.</p> <p>And for ferries, the comparatively high level of public subsidisation is excessive when compared to the external benefits they create. In part, this conclusion rests on the fact that ferries substitute for other, arguably more efficient, public transport modes to a greater extent than they substitute for cars.</p>
Read the final report	<p>Over a series of studies spanning 2008 to the present, these externality studies have been influential in IPART's fare determinations. Copies of the most recent externality reports can be found in the "Review of fares" pages for each review:</p> <p>www.ipart.nsw.gov.au/Home/Industries/Transport/Reviews/CityRail</p> <p>and</p> <p>www.ipart.nsw.gov.au/Home/Industries/Transport/Reviews/Sydney_Ferries</p> <p>Also, a presentation to the Economic Society of Australia by Mike Smart on this topic can be found at: www.srgexpert.com/publications.html</p>