



**To:** Neighbourhoods and City Development

**From:** Adrian Davis

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**Subject:** Essential Evidence on a page: No. 80 Measuring Transport performance

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Top line: Even where motor traffic flows are acceptable in terms of throughput, private motor vehicle use is still something to be managed and minimised in the interest of air quality, energy conservation, accessibility and general social welfare.

Traditionally, traffic planners have operated with one objective: to move people into and around cities as rapidly and efficiently as possible...But of course that is no solution... Cities should be an end, not a means.<sup>1</sup> One of the means has been to use a Level of Service (LoS) to grade the flow of motor traffic between free flow and gridlock. Historically, when the architects of traffic growth management began looking for ways of measuring the adequacy of public facilities and services, road LoS were both handy and defensible. They were embraced without reservation. What has been the planner's and engineer's overriding concern became the policy maker's.<sup>2</sup>

In Ewing's 1995 paper on measuring transport performance he called for a paradigm shift. He noted that at least four options could be identified to replace the old paradigm and that these were: mobility; accessibility, livability, and sustainability. Whereas LoS generally pertains to facilities, 'mobility' generally pertains to populations, 'accessibility' to land uses, 'livability' to communities, and 'sustainability' to developments. While high levels of mobility bring with them high social costs due to car dependency, accessibility considers the spatial distribution of opportunities so that transport policies might be evaluated not only in terms of moving people to the opportunities but also *moving the opportunities to the people*. Accessibility is also identified in terms of the protection of peoples' rights to a just and equitable share of 'exchange opportunities' which accessibility maximizes.<sup>3</sup>

For livability, a livable community is one that puts the motor vehicle in its rightful place as one among many travel options. There are two sides to this. First, traffic must be calmed in terms of speed and volume, and secondly other modes must be enhanced – primarily through land use changes and facility design. Pedestrians, cyclists and public transport users must be given as much priority within the street environment as are private motor vehicle users. A livable street environment is better not only for residents and pedestrians, but perhaps even for motorists since it makes the driving experience more pleasant. Sustainability concerns conserving natural resources and protecting the natural environment. Ewing posed that excessive fossil fuel consumption and air pollution are the main threats to sustainability. Among modes, walking and cycling rank highest and single-occupant car use the lowest.

The land use-transport system is universally acknowledged to be a "system" of inter-dependent elements (even if it is seldom planned or managed as such). This has implications for the choice of transport performance measures. Ideally, measures will reflect the efficiency of both land use patterns and transport networks: they will acknowledge the multi-model nature of the system. In brief there should be less emphasis on how fast vehicles move and more on how people's travel needs are met.

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<sup>1</sup> Sale, K. 1980 *Human Scale*, New York: Coward, McCann & Geoghegan.

<sup>2</sup> Ewing, R. 1995 Measuring transport performance, *Transportation Quarterly*, 49(1): 91-104.

<sup>3</sup> Engwicht, D. 1992 *Toward an eco-city: calming the traffic*. London and Sydney: Environbooks.