Abstract
This paper, co-authored with Ian W.H. Parry, derives formulas for the welfare effects of reforming subsidies for peak and off-peak urban rail and bus fares, and applies them to the metropolitan areas of Washington, D.C., Los Angeles, and London. The model accounts for congestion, pollution, oil dependence, and accident externalities associated with automobiles and each transit mode. It also accounts for scale economies in transit supply, costs of accessing and waiting for transit service, crowding costs, pre-existing fuel taxes, and the transit agency’s adjustment of frequency, vehicle size, and route network in response to changes in demand. We find that in almost all cases existing subsidies – which typically exceed 50% of operating costs – are either about right, or possibly too low, across bus and rail, peak and off-peak period, in the three cities.