

Pricing and Capacity Competition on Large Mixed-Ownership Networks (\$7,000)

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Currently, almost all highways in the US are publicly owned and operated. However, increasing involvement from the private sector in transportation network financing appears inevitable for several reasons: (1) By all forecasts, automobile travel demand is expected to continue growing at a fast pace into the foreseeable future; (2) There is political unwillingness to increase the gasoline tax or adopt innovative revenue schemes (such as congestion pricing) on a large scale and combined with inflation, there have been significant reductions of public transportation improvement funds in terms of real dollars. This supply-demand mismatch has forced government agencies at federal and state levels to seriously consider the benefit of private-sector participation in transportation financing (more so in heavily congested regions), and several states have already approved or implemented private toll road projects. Research funds will help develop more sophisticated network simulation models to evaluate private and “free” public road toll and capacity instruments. Different assumptions and options will be considered for analysis of private and public toll roads using real-world scenarios and road pricing; further, strategic investment and public-private partnerships in transportation network financing will be evaluated. Results of this study will help engineers, planners, and public agencies formulate strategies that can optimize investments for highway expansion and utilization. The Kiewit Center is providing up to \$7000 to support Professor Lei Zhang of the Department of Civil, Construction, and Environmental Engineering at Oregon State University in this research effort. The Kiewit Center funds will be matched with existing research funds and can further be matched by the new Oregon Transportation Research and Education Consortium (OTREC) to provide total research funding of \$30,000 to address this rising issue of national importance.