

Industrial and Systems Engineering

Special Seminar

Price Competition under Subsidization: Applications to Medicare Reform

Tuesday, September 9

1:00 PM – Special Seminar

305 Lind Hall



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We consider price competition models for oligopolistic markets, in which a significant part of the product or service price is paid by a third party, as a subsidy. The consumer is, therefore, impacted by the net price, defined as the difference between the *nominal* price and the subsidy, while the firms earn the full nominal price, partially paid by the subsidizing third party and the remainder by the consumer. The subsidy may be *exogenously* specified and pre-announced to the competing firms. Alternatively, it may be endogenously determined, as a function of the set of nominal prices selected by the competing firms, for example the lowest or the second lowest price. We first characterize the equilibrium behavior under a general subsidy scheme of the above type. We also derive comparison results for the price equilibria that arise under alternative subsidy schemes. We proceed to apply our results to the Medicare insurance market, both in terms of its existing structure, as well as in terms of various proposals to redesign the program, in particular the Wyden-Ryan proposal. We show the implementation of the latter plan in 2010 would have reduced the capitation rates, on average by 18.5% and enabled savings of 16.2% in the governments' costs. These numbers are significantly larger than traditional estimates obtained under the assumption that the plans' premia and market shares would not be affected by the new capitation rate scheme. For beneficiaries continuing to opt for the traditional Medicare plan, the average monthly cost is roughly \$64.

~with Lijian Lu