

# **Labour Supply, Work Effort and Contract Choice: Theory and Evidence on Physicians**

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## **Abstract**

We develop and estimate a generalized labour supply model that incorporates work effort into the standard consumption-leisure trade-off. We allow workers a choice between two contracts: a piece rate contract, wherein he is paid per unit of service provided, and a mixed contract, wherein he receives an hourly wage and a reduced piece rate. This setting gives rise to a non-convex budget set and an efficient budget constraint (the upper envelope of contract-specific budget sets). We apply our model to data collected on specialist physicians working in the Province of Quebec (Canada). Our data set contains information on each physician's labour supply and their work effort (clinical services provided per hour worked). It also covers a period of policy reform under which physicians could choose between two compensation systems: the traditional fee-for-service, under which physicians receive a fee for each service provided, and mixed remuneration, under which physicians receive a per diem as well as a reduced fee-for-service. We estimate the model using a discrete choice approach. We use our estimates to simulate elasticities and the effects of ex ante reforms on physician contracts. Our results show that physician services and effort are much more sensitive to contractual changes than is their time spent at work. Our results also suggest that a mandatory reform, forcing all physicians to adopt the mixed remuneration system, would have had substantially larger effects on physician behaviour than those observed under the voluntary reform.

*Keywords:* Labour supply, effort, contracts, practice patterns of physicians, discrete choice econometric models, mixed logit

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