

IGSS Abstract

Genetic Modulation of the Effects of Tobacco Taxation on Use

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Abstract

The reduction in tobacco use as a result of taxation has been considered one of the most important public health successes in the past century. However, individuals continue to smoke at high rates and there is evidence of substantial heterogeneity in the responses to taxation. One of the key determinants of tobacco use is genetic susceptibility, yet important policies to reduce tobacco use have not successfully merged this risk factor in targeting interventions. This paper extends the standard economic framework that has evaluated tobacco taxation effects by presenting the first evidence in the literature that specific genetic polymorphisms moderate the effects of taxation on tobacco consumption. The evidence suggests that taxation only affects smoking participation decisions of individuals with a specific genotype—a polymorphism of a nicotinic receptor gene—and has no effect on others. Additionally, the results can be interpreted to be broadly consistent with the idea that policy variation can affect the expression of underlying genetic endowments