

## Genetics, Addictive Consumption, and Price Response Heterogeneity

Taxation is the traditional policy mechanism for discouraging “bad” behaviors like smoking. Are such policies only effective on certain people? More concretely, to what extent can genetic data explain addictive good consumption and heterogeneity in responsiveness to related taxes and prices? Using the Health and Retirement Study (HRS) I construct: (1) polygenic scores that conglomerate genetic predisposition to smoking habits (also incorporating data from the Tobacco and Genetics Consortium and the 1000Genomes Project) and (2) principal components that proxy for familial geographic origins. I use these two sets of measures as predictors of addictive behavior, and interact the polygenic scores with local taxes and prices to uncover response heterogeneity. Along the intensive margin (i.e. cigarettes smoked per day conditional on being a smoker), cigarette tax and price increases only deter behavior among those most genetically predisposed to high daily consumption. Along the extensive margin (i.e. being a smoker or not), no such heterogeneity is present. I also use my cigarette-based scores to predict alcohol-related outcomes, and explore associated heterogeneity in responsiveness to beer taxes and prices. I find no tax nor price response heterogeneity with respect to the intensive margin (i.e. drinks per week conditional on being a drinker). But, along the extensive margin (i.e. being a drinker or teetotaler), beer taxes are more of a deterrent among those who are least predisposed to quit smoking; similar effects are not found for beer prices.