Estimating the Causal Effect of Parental Smoking on Youth Uptake
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Smoking is the leading preventable cause of death in the U.S., contributing to more than 400,000 deaths annually. A recent public health initiative, *Healthy People 2010*, aims to cut the prevalence of smoking among adults in half, from the current rate of about 24 percent to 12 percent. Recent policy debates have tended to focus on how to prevent youth from starting to smoke. Embedded in all of the debates about youth smoking is a stylized fact that has yet to be established in a systematic way - whether the strong correlation between parental smoking and youth smoking prevalence is causal or not. The answer to this question seems, on its face, to be obvious. After all, when parents smoke in the home, they expose their children to nicotine. If nicotine is as addictive as evidence suggests, then the exposure to second-hand smoke would cause children to be more likely to smoke as adults if they grew up in a home with parents who smoked.

To answer this question statistically is more challenging. It requires, at the least, an instrument to predict parental smoking behavior that does not also predict the smoking behavior of children. To tackle this issue I will use temporal differences in the tobacco control policies faced by children and their parents. I will use retrospective data on smoking behavior of children and parents from the Panel Study of Income Dynamics (PSID). These data allow me to match state tobacco control policies to each generation from the years they were smoking. I then use the tobacco control policies to predict the probability each generation starts and the probability each generation quits smoking.

The PSID began in 1968 with a sample of 5,000 households, representing a disproportionate number of low-income individuals. All current PSID families contain at least one member who was either part of the original 5,000 families or born to a member of one of these families. Although the

original sampling scheme disproportionately selected individuals from low-income families, a representative sample of the United States population can be obtained by excluding the original over-sample from the data or by applying sample weights. Only the head and "wife" (a PSID term designating the household member with whom the head has a "significant" relationship) are asked about their cigarette consumption. We will use retrospective smoking questions were asked in 1986, 1990 (for those age 65+), 1999, 2001, and 2003. These data yield about 120,000 smoker-year observations.

Because of the intergenerational nature of the PSID, we can link members of the same family across generations. This aspect of the data means I can also estimate the effect of parental smoking for children of different ages because I observe smoking behavior of all children who were surveyed as adults (heads or wives) in a subsequent wave.

I link policy data to each PSID respondent based on the state in which she or he lived over all years of her/his life. The state identifiers allow me to merge in tobacco control policies from those states and years. The temporal differences in age and in place of residence (for those persons who raised families in states other than where they grew up) allows me to identify smoking behavior of parents independently of their children.

I use discrete time hazard models for the estimation of smoking behavior of each generation.