

State-Level Precursor Restrictions and Methamphetamine Use: An Effective Policy Instrument?

Greg Rafert and Hendrik Wolff

Department of Agricultural & Resource Economics

Methamphetamine is a highly addictive drug that is believed to inflict large costs in the United States. Unlike other drugs such as cocaine and heroin, methamphetamine can be made easily at home using everyday products. To reduce the impact of methamphetamine, over twenty states have implemented policies to restrict access to two key precursors, ephedrine and pseudoephedrine. To our knowledge, this is the first paper to quantitatively investigate the impact of these policies on methamphetamine production, methamphetamine use, crime, and other health outcomes.

To examine the impact of these state-level precursor policies, we use a unique data set of criminal offenses, drug use, drug prices, methamphetamine busts by local, state, and Federal officials, and hospital admissions collected at the state- and month-level from 2000 to 2007 for all U.S. states.

We utilize 2SLS to investigate the effects of these policies. Specifically, to control for endogenous policy adoption we instrument for a state's passage of a precursor restriction law in the first-stage. We then use predicted values from this first-stage regression in the second-stage to investigate the relationship between methamphetamine precursor restrictions and methamphetamine production, methamphetamine use, crime, and other health outcomes. Further, we analyze the impact of adoption of a precursor law by one state on surrounding states. Since methamphetamine can be easily transported and since methamphetamine producers can make methamphetamine in any number of locations, it is hypothesized that precursor law adoption may have little impact on methamphetamine supply even if domestic (state) production declines.

Preliminary results suggest that state-level precursor restrictions reduce domestic methamphetamine production. However, such decreases are correlated with increased production levels in neighboring states. Further, in some states, crime increases immediately after precursor legislation. Thus, although precursor laws are effective in reducing domestic production, they may lead to higher rates of crime as individuals who once produced methamphetamine cheaply at home must now pay higher prices on the street.