

Smoke-Free Policies Assessment

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Background

- Smoke-free policies promote quitting among smokers, increase the number of quit attempts, reduce the number of cigarettes consumed by a smoker and discourage initiation among youth.
- Previous research indicates that comprehensive smoke-free policies restricting smoking in *all* public places have a stronger effect on smoking prevalence than partial policies exempting only *certain* venues. Currently, the state of Louisiana has only implemented a *partial policy* only.
- Statistics used in previous research treat smoking policies as "exogenous" variables (e.g. effect comes from outside of the statistical model), ignoring the impact of the policies themselves on smoking prevalence. This research treats smoke-free policies as "endogenous", which considers that smoke-free policies are likely associated with smoking prevalence and smoking prevalence is associated back to smoke-free policies.

Methodology

- A yearly, state-level panel data set was created utilizing smoking prevalence from the Behavioral Risk Factors Surveillance Survey, smoke-free policies from the Robert Wood Johnson Foundation interactive tobacco database, cigarette taxes from the CDC's STATE tracking system, state poverty rates from the U.S. Census, and state unemployment rates from the Bureau of Labor Statistics from 1998-2010.
- Two statistical models were estimated: 1) a linear fixed effects model assuming exogeneity, and 2) an Arellano-Bond dynamic panel data model that controlled for endogeneity.

Results

- The Arellano-Bond model found a strong and partially significant effect of comprehensive smoke-free policies in reducing smoking prevalence, but partial smoke-free policies had *no effect* on smoking prevalence.
- The exogenous fixed effects model found decreases in smoking prevalence given comprehensive smoke-free laws; however, the decrease in smoking prevalence given comprehensive laws within the Arellano-bond model were even larger in magnitude.
- Treating smoke-free policies as exogenous (as previous research has done) drastically obscures their impact.

Conclusions

- Comprehensive smoke-free policies have a greater effect on smoking prevalence than partial policies, and ignoring the endogenous nature of such policies masks this relationship. To see these benefits, tobacco control efforts in Louisiana should promote a comprehensive policy.
- Even further, evaluation research should treat such policies as endogenous. Research on the impact of comprehensive smoke-free policies as endogenous can build a stronger argument for the state of Louisiana to adopt a comprehensive policy over its current partial policy.

