



## Article Title

Much ado about nothing? Smoking bans and Germany's hospitality industry

## Citation

Kvasnicka, M., & Tauchmann, H. (2012). Much ado about nothing? Smoking bans and germany's hospitality industry. *Applied Economics*, 44(35), 4539. Retrieved from <http://login.ezproxy.lib.vt.edu/login?url=http://search.proquest.com.ezproxy.lib.vt.edu/docview/894050043?accountid=14826>

## Abstract

Over the past years, public smoking bans have been introduced in most European countries. Unlike elsewhere, in Germany, such bans were introduced at the state level at different points in time, which provides important intra-country regional variation that can be exploited to identify the effects of such bans on the hospitality industry. Using monthly data from a compulsory survey carried out by the German Federal Statistical Office, we study the short-run effects that these bans had on establishments' sales. In contrast to the largely US-based literature, we find that smoke-free policies had a negative (yet moderate) effect on establishment sales. Closure rates of businesses in the hospitality industry, however, were not significantly affected by the introduction of state smoking bans.

## Methods

Analysis is based on data of year-to-year percentage changes in monthly state-level sales in the hospitality industry. This unpublished sales data was kindly provided to us by the German the Federal Statistical Office (Statistisches Bundesamt). It covers the period January 2007 to September 2008 and hence consists of 336 state-month observations (16 states  $\times$  21 months)

## Results

Our finding of a negative effect of smoking bans on sales is robust to the inclusion of additional controls, such as state unemployment rates and weather conditions in the individual states (temperature and rainfall), which might have affected state sales in the hospitality industry the coefficient attached to the monthly unemployment rate is positive, yet never significant. Temperature does not exert any significant effect on sales. In contrast, rain does matter and bears the expected positive sign. That is, people spend more money – and presumably more time – in bars pubs and restaurants if the weather is bad. Yet, it is still remarkable that the effect of rainfall on sales can such clearly be detected even in aggregated data.

## Conclusions

In this article, we studied whether state-level smoking bans in Germany affected state sales in the hospitality industry in the short run. For identification, we exploited the fact that German states introduced smoking bans at different points in time. Our analysis hence did not rely on a

simple before-after comparison but exploited intra-country regional variation in the timing of smoke-free regulations. Regression analyses yielded a statistically significant and negative average effect on sales of roughly 2%. This result is robust to a wide range of model specifications and to the inclusion of state- and time-specific level effects as well as state-specific trends in sales. There is some evidence, however, that adverse effects do fade out if smoking bans have been in force for some time. Our key finding of a significant and adverse effect of smoking bans on sales in the hospitality industry stands in contrast to the main body of the existing – largely US-based – literature, which in the majority does not find such an effect. One may explain this discrepancy by the fact that smoking prevalence is much smaller in the US than in Germany, which limits the magnitude of any adverse effect that smoking bans may exert on business sales. Although our results show that innkeepers were harmed by smoking bans, this does not render such bans unjustified. Rather, it contributes another piece of evidence for an objective overall comparison of the costs and benefits of anti-smoking regulation.