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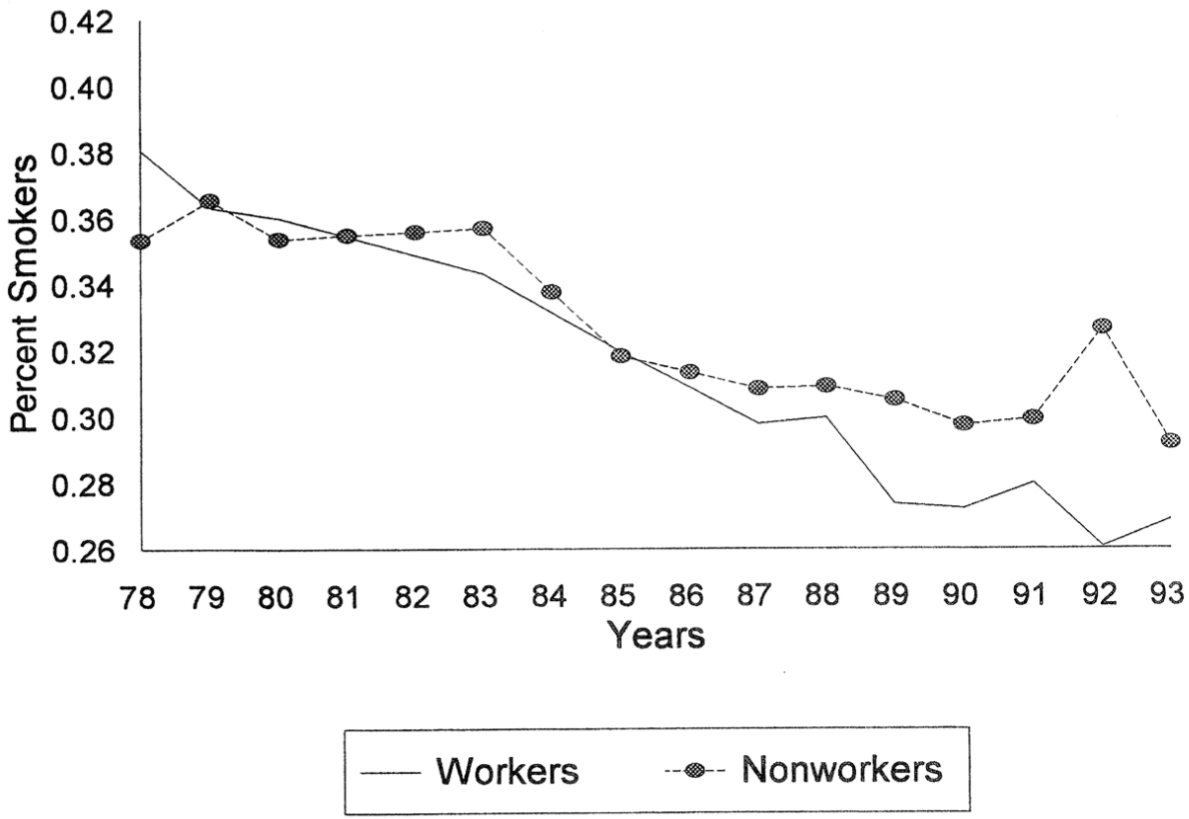
- As a respond to a public awareness of potentially harmful effects of second-hand tobacco smoke, State and local governments have passed clean indoor air laws that restrict smoking in a variety of public places, such as restaurants, elevators, public meeting rooms, and in the workplace.
- 25% of the workers in 1985 worked in establishments that banned smoking in work areas. By 1993, this number increased to 70%
- In March 1994 the Occupational Health and Safety Administration (OSHA), as part of a larger initiative on indoor air quality, proposed a complete ban on smoking in over six million workplaces
- In addition to reducing exposure to second hand smoking, smoking restrictions may affect smoking behaviour by reducing opportunities to smoke

Smoking participation rates



Data

- `Smoking.gdt` is a cross-sectional data set with observations on 10,000 indoor workers, which is a subset of a 18,090-observation data set collected as part of the National Health Interview Survey in 1991 and then again (with different respondents) in 1993.

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1. What is the probability of smoking for someone in the sample? What is the probability of smoking for individuals (not) facing smoking bans?
2. Is there a significant difference in the smoking probability whether or not a worker face smoking bans?
3. Do we observe differences in terms of education (dummies for educational levels), race (dummies for race categories), or demographics between workplaces whether or not they are subject to smoking bans?
4. Using a linear probability and conditional on education, race and demographics (age, age squared and gender), evaluate whether or not smoking bans reduces the probability of smoking? How do you explain the differences in our first estimates?

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5. Does education have an impact on the smoking probability?
6. Does age have a linear effect on the smoking probability? How do we explain this relation? What is the *marginal* of age on the probability of smoking for an individual that is 20 years old?
7. Using a conditional (on education, race and demographic) `probit` model, estimate the probability of smoking for a 20 years old dropout man (Mr A) who does not face smoking bans. How much change this probability when facing smoking bans? Compare these results with the one obtained with a LPM.

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8. Estimate the same probability for a 40 years old, black woman with a college degree (Mrs B). Compare it with the one obtained with a LPM.
9. Estimate the impact of smoking bans for Mr A and Mrs B.
10. Using the `probit` model, estimate the marginal effect of age for Mr A and Mrs B with and without smoking bans. Compare it with the LPM.