

Heating in China and Value of Clean Air

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Heating differences between the North and South in China

- China's Huai River policy: free winter heating via the provision of coal for boilers in cities north of the Huai River but denied heat to the south.
- Regression discontinuity design based on distance from the Huai River
- Ambient concentrations of TSPs are about 184 $\mu\text{g}/\text{m}^3$ [95% confidence interval (CI): 61, 307] or 55% higher in the north.
- Life expectancies are about 5.5 y (95% CI: 0.8, 10.2) lower in the north owing to an increased incidence of cardiorespiratory mortality.
- Long-term exposure to an additional 100 $\mu\text{g}/\text{m}^3$ of TSPs is associated with a reduction in life expectancy at birth of about 3.0 y (95% CI: 0.4, 5.6).

Thoughts for evaluation

- Natural experiments
- Causal identification strategies
- Regression discontinuity

References

- Chen Y, Ebenstein A, Greenstone M, Li H. Evidence on the impact of sustained exposure to air pollution on life expectancy from China's Huai River policy. *PNAS* 2013. <https://doi.org/10.1073/pnas.1300018110>.