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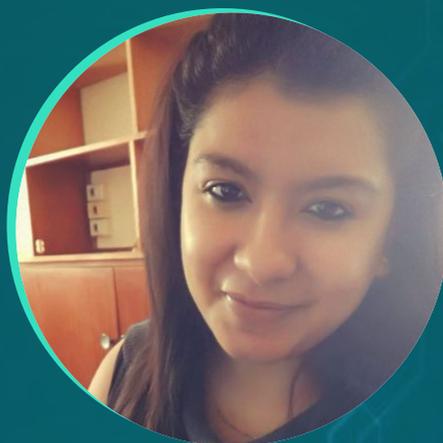
## ECONOMICS AND FINANCE FOR SOCIETY INITIATIVE

*presents*

# EFSI SEMINAR SERIES

## Growing-up in an Unequal Environment: Effect of Pollution on Child Health in India

**SPEAKER**



**DR. PRACHI SINGH**

Visiting Professor, Ashoka University

### ABSTRACT

This paper explores the impact of environmental endowment (i.e., air quality as measured by pollution levels) on child health outcomes in India. We combine satellite PM<sub>2.5</sub> data with geo-coded Demographic and Health Survey of India (2015-16) and use an instrumental variable strategy for identification as local pollution levels may be endogenous due to local household behavioural choices like participation in local fuel wood market, burning crop residue etc which are not observed in survey data. Our identification strategy relies on use of upwind biomass burning events (i.e., crop fires and forest fire events) in neighbouring areas to identify the effect of air pollution on child health. Our results indicate that a 10ug/m<sup>3</sup> increase in exposure to pollution (PM<sub>2.5</sub>) during the first trimester lowers Height-for-age (by 2 percent) and Weight-for-age (by 1.8 percent). We find that the negative effect on height-for-age of exposure to outdoor pollution experienced during the first trimester persists even after the first two years of life. We also find that children belonging to North India, poor households and born to mothers with low education levels are especially vulnerable to the harmful effect of exposure to pollution.

### ABOUT THE SPEAKER

**Prachi** is currently a Visiting Faculty at the Ashoka University. She completed her PhD from Indian Statistical Institute, Delhi. Prior to joining Ashoka she has worked as an Associate Fellow at Brookings India. Her research interests lie in Environmental, Health and broadly Development Economics. Her work focuses on crop/forest burning practice in India and its health effects (on children, adolescents and older population).



**THU, 25 MARCH 2021**  
**2:30 PM – 3:30 PM IST**

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