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Effects of Heat Stress on Physiology and Livelihoods: Implications for Human Capital Accumulation

Sept. 14 2:00-3:15pm EH 211

We present estimates of the effects of extreme temperatures on human capital accumulation in India. Short-run temperature reduces math but not reading test scores through a physiological mechanism. However, this effect is temporary; hot days prior to the day of the test have no effect on performance. Longer-run temperature, in contrast, reduces both math and reading test scores through an agricultural income mechanism - hot days during the growing season reduce agricultural yields and test score performance with comparatively modest effects of hot days in the non-growing season. The roll-out of a conditional cash transfer program, by providing a safety net for the poor, substantially weakens the link between longer-run temperature and test scores. Our results indicate that (1) extreme temperatures can affect a single economic outcome through multiple channels over different time horizons requiring multiple policy instruments to combat rising heat stress and (2) that absent social protection programs, climate change will have disproportionate and large negative impacts on human capital accumulation of poor populations in agrarian economies.

Food and drinks will be served. All seminars are free and open to the public

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