Climate Change and Outdoor Labor Markets: The Rise of Dropouts of Adult Males

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December 2023

Abstract

Since 1970s, male labor force participation in developed economies has ubiquitously declined for a half century. I argue that modern global warming fueled dropouts of prime-aged males, by harming the males' traditional advantage of working outdoors. Leveraging regional dependency on outdoor jobs and rich variations of regional climate change from granular hourly weather data across U.S. Commuting Zones during 1970-2019, I find that 10 more hot days (i.e., mean temperature of 75F and above) in a decadal baseline on average generated 240,000 dropouts. Transition to an indoor sector under air conditioner was limited. Climate change accounted for 5-10% of increased dropouts of prime-aged males during the period. The impact is far smaller for females, only below 5% of whom work outdoors. Consistent with inelastic labor demand, I find hot days sharply raised wages of surviving outdoor workers, plausibly as a compensating wage differential. Heat regulation law would expectedly serve to prevent further dropouts.