

High Temperature Reduces Transmission of COVID-19: Evidence from The United States*

Peter Kelly[†]

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Abstract

This paper investigates the effect of air temperature on COVID-19 transmission using county-level data from the United States. I find that higher temperature in a county decreases the transmission of COVID-19. A one-degree Fahrenheit increase in air temperature lowers the effective reproduction number R by 0.008. While the coefficient is small in magnitude, the potentially large impact of any change in R around 1, which is approximately the median among counties in the sample, will be discussed. This finding is consistent with most other early evidence on the role of temperature in COVID-19 transmission and the fact that coronaviruses have been observed to be sharply seasonal diseases (Monto *et al.*, 2020).

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[†]Brown University... Undergraduate