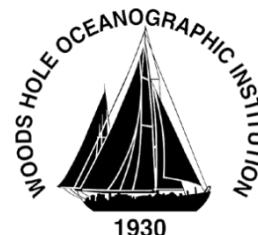

Woods Hole Oceanographic Institution
Marine Policy Center Seminar

Monday, April 11, 2022 10:30 AM

Zoom Registration Required:

<https://whoiedu.zoom.us/j/91234567890>



*Equity, Climate Uncertainty, and the
Social Cost of Carbon*

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The social cost of carbon (SCC) is an important and widely used metric that approximates the monetized harm to society from emitting one additional ton of carbon dioxide (CO₂) into the atmosphere. For over a decade, the U.S. government has used the SCC in its regulatory impact analyses to value the benefits of reducing CO₂ emissions. Current SCC estimates rely, however, on outdated climate models and are largely silent on important questions of equity and the unequal burden of climate change impacts. I first show that using an improved climate and sea-level model calibrated to historic observations nearly halves extreme SCC estimates relative to the climate modeling framework currently used by the U.S. government. I then extend these results to incorporate equity considerations into the SCC by placing greater weight on climate change impacts occurring in lower-income regions. Accounting for equity substantially increases the SCC for high-income regions, providing economic support for stronger CO₂ emission reduction efforts in the United States.