Recent patterns and possible climate-driven changes in Southeastern wildland fire smoke impacts

We examine the following questions:

• Where are the greatest smoke impacts?
• Are those experiencing the most smoke disproportionately impacted?
• How do impacts differ between wild- and prescribed fire?
• How might these impacts change at mid-century due to projected fire activity in the region?
All Smoke $\text{PM}_{2.5}$

Source-specific Smoke

Projected Changes in Fire Activity

Manager input

Future smoke scenario

EJSCREEN Indices

People of Color
Low Income
Ambient $\text{PM}_{2.5}$

Smoke Impacts

Adapted from Kupfer et al., 2020
From Prestemon et al., 2016

Photo: Thomas Crate

From 2017 NEI Technical Support Document
Outcomes:

• Better idea of regional smoke impacts on air quality and on population
  • Separating prescribed fire from other wildland fire
• Representation of possible future smoke distribution
  • Changes in impacts, fire activity
    • Informed by manager input
• Regional burners’ plans, concerns for future of fire

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