

State Level Regulations on Private Forestland: an Analysis of Relationships between State Level Regulations and State Characteristics

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Background and Research Gap

State level regulations on private forestland are diverse. States approaches range from voluntary-based approaches to regulatory-based approaches with many variations in-between. Some states do not regulate their forest practices whereas many regulate and have programs that focus more on licensing of foresters, tax incentives and so on.

- States have been categorized into regulatory, quasi-regulatory, or non-regulatory¹. States fall under quasi-regulatory when BMPs are non-regulatory however, water quality violation results in penalty². These categories might mask variation within groups.
- Previous literature has mostly focused either on the effectiveness of state-level regulatory programs³ or on the beliefs and perceptions of landowners towards such programs⁴. However, little is known about the extent and magnitude of variation in regulation with state characteristics.

Research Questions (RQ)

- Can states be broadly categorized based on state level regulations on multiple forest practices on private forestland?
- How do state characteristics relate to state level regulations on forest practices on private forestland?

Methods

Data Collection

Multiple approach of quantitative methods:
Step 1: Closed ended expert survey
Step 2: Document Analysis of Best Management Practices (BMPs), Forest Practice Acts, statutes, and agency website of each state

Statistical Methods

- RQ 1. Cluster analysis
RQ 2. Generalized liner model

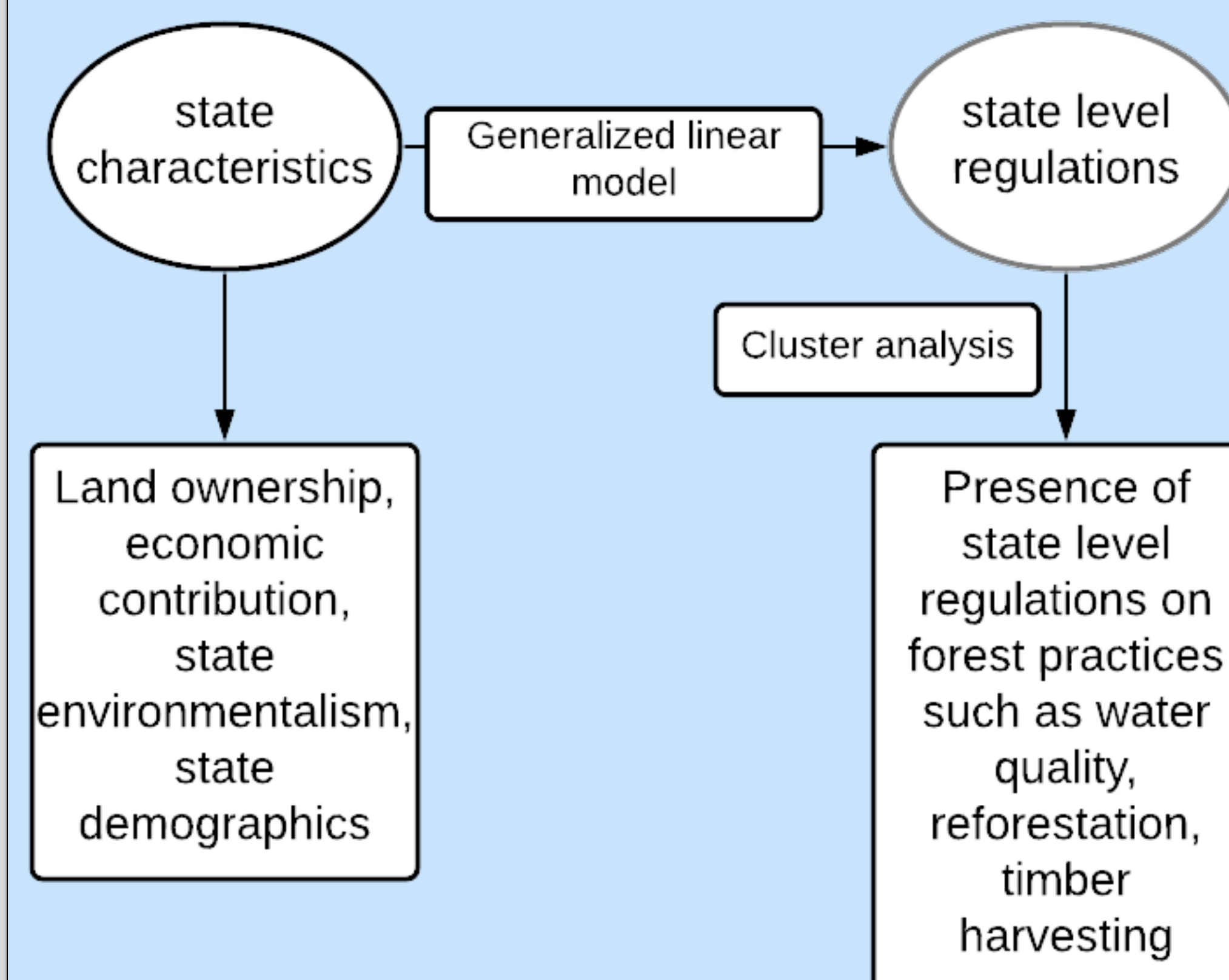


Fig 1: Methodological framework

Preliminary Results (maps subject to change)

Preliminary results show regional concentrations in the number of regulations and the use of programs such as licensing of foresters or incentives to promote management planning. As anticipated, categories of regulatory to non-regulatory mask a lot of variation in number of forest practices regulated at state level.

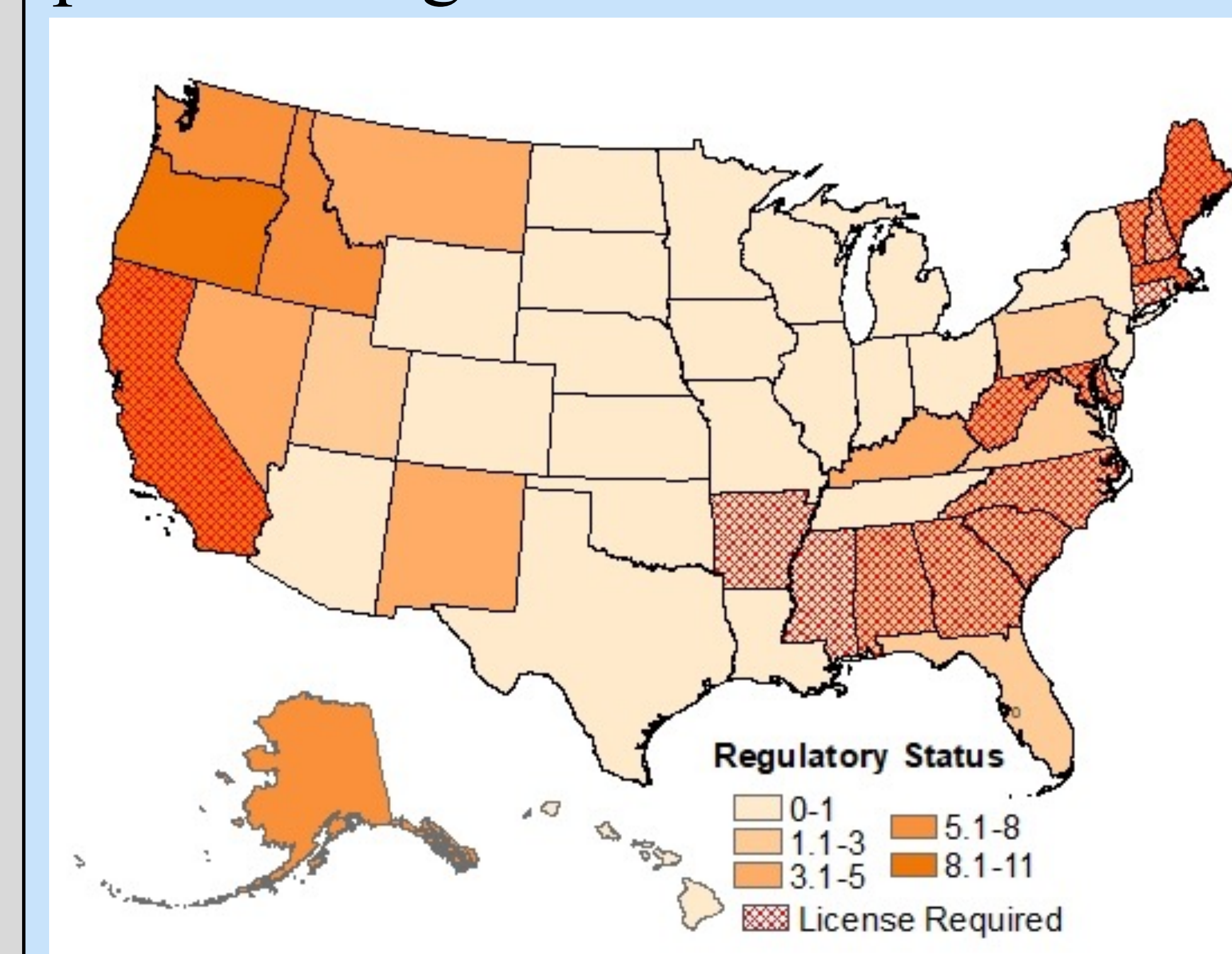


Fig 2: Number of regulated forest practices at state level along with license requirement to be a forester

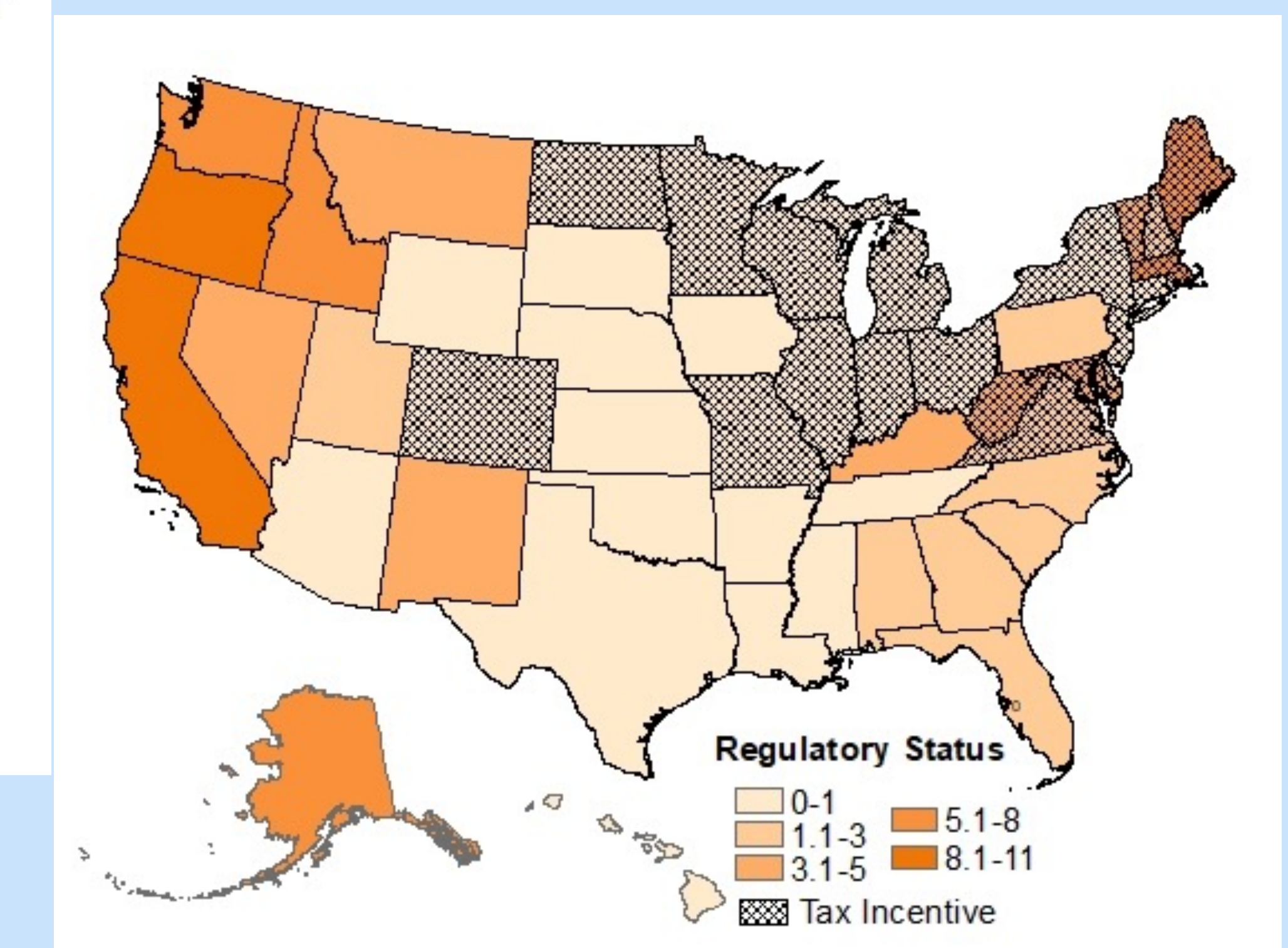


Fig 3: Number of regulated forest practices along with requirement of forest management plan for tax incentives

Anticipated Results

- We anticipate that states will be categorized into broad categories that show wider variation than the present axis of regulatory, quasi-regulatory, and non-regulatory.
- We expect to see some (positive or negative) relationship between state characteristics and state level regulations in private forestland.

Scope of Inference

Results will demonstrate correlation between the variables but will not allow for causal inference.

Broader Significance

Results will help us to identify geographical, political, and socio-economic patterns in state level approaches to regulate forestry practices in private forestland across the United States.

Literature Cited:¹NAFS, 2020; ²Aust & Blinn, 2004; Cristan et al., 2018; ³Henly et al., 1988; Rose & Coate, 2000; ⁴Creighton & Baumgartner, 2005; Janota & Broussard, 2008; Kooistra et al., 2018; Kreye et al., 2019; Quartuch & Beckley, 2014

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