Much research has been done on the impacts of climate change on different sectors. Climate change and greenhouse gas emissions are a direct result of energy consumption. In evaluating the economic effects, we take a novel adaptive approach to a classic forestry economics problem: What age should I cut a tree and what should I replant?

Goal: model people’s behavior by taking a complicated problem and distilling it down to simple choices given variables that are species-specific and changing over time:
- Environmental variables
- Timber prices
- Competing land uses like urbanization
- Costs
- Possible carbon payments

Preliminary Results: we observe increases in productivity in certain scenarios due to climate change; however, they are offset by global timber price movements.

Other applications outside of forestry:
- Invest in a cheap plant that is costly to run or an expensive plant that is cheap to run?
- Buy a cheap gas guzzler or an expensive Prius?

Further funding by CA Energy Commission’s Public Interest Energy Research (PIER) Program