



b. (8 points) Write down the equations that you would use to compare benefits and costs, and explain exactly how you would adjust future benefits and costs (including how you would choose any parameters in these equations).

c. (9 points) Describe 2 kinds of sensitivity analyses (changes in your assumptions) you would complete and what you expect the results of this sensitivity analysis to be.

2. (25 Points) Policies for the reduction of gasoline consumption

a. (10 points) West and Sallee (2009) finds that if consumers use a discount rate of 5%, they value about 79% of the savings in fuel costs from buying a more fuel efficient vehicle. If, on the other hand, consumers use a 10% discount rate, they value 100% of the difference in fuel costs. Explain why a change in the assumed discount rate affects results in this way.

b. (15 points) Assuming that the right discount rate to use is 5%, what do West and Sallee's findings imply for policies for the efficient reduction of gasoline consumption?



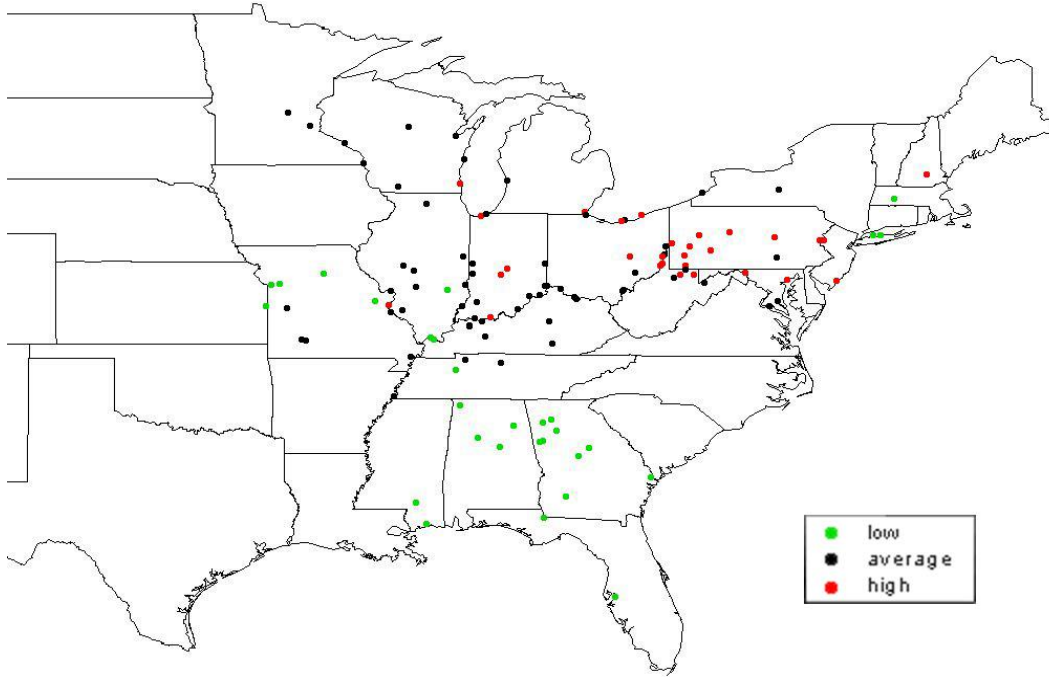
c. (8 points) What are the policy implications that follow from these distributions? How are they similar to the implications of the mainstream models described in Mendelsohn? How are they different?

**Section II: Short Answer Questions (25 points)**

1. (10 points) Evaluate the following statement: “Studies using panel data find statistically significant evidence for the existence of an environmental Kuznets curve for sulfur dioxide (SO<sub>2</sub>). These results imply that once China reaches the turning point GDP/capita, its SO<sub>2</sub> emissions will fall.”

2. (15 points) On the next page, find two maps associated with Shadbegian et al.. Interpret them, making sure you indicate specific points on them, and describe their implications.

## Benefits per ton



## Allowance (permit) buyers and sellers

