## Hixon Center for Urban Ecology Student Research Fellows

# Does Public Information Disclosure Reduce Drinking Water Violations?

### Evidence from Massachusetts Katrina Jessoe

#### **Problem Investigated:**

Impact of Public Information Disclosure on Drinking Water Quality

The 1996 amendments to the Safe Drinking Water Act required that community drinking water services provide Consumer Confidence Reports to their consumers. The CCRs disclose information on the source of drinking water, any detected contaminants and violations of health-based drinking water violations and procedural protocol. This "right to know" legislation informs households about drinking water contaminants and the deleterious health effects associated with exposure to these contaminants. Information disclosure may alter the behavior of both water suppliers and consumers.



#### **Guiding Question:**

Did "Right to Know" Information Disclosure Reduce Drinking Water Violations?

Panel data on drinking water violations by 517 community systems from 1990 to 2003 were collected by the State of Massachusetts. This study employed three different estimation strategies – panel data models, a quantile regression and a regression discontinuity design – to explore the impact of information disclosure on drinking water violations.



#### **Results:**

Systems mandated to mail CCRs to consumers significantly reduce drinking water violations

Prior to the "right to know" legislation, water utilities submitted water violation information to the State; thus water utilities gained no new information from the "right to know" legislation. The results suggest that utilities altered behavior following the CCR legislation. This finding is more pronounced for utilities that were required to mail CCRs directly to consumers. Consumer awareness of drinking water violations will likely generate political responses and risk averting behavior. Public awareness of drinking water quality will most likely increase if consumers are directly informed about water quality via the in-home delivery of CCRs.

The fellow's contribution to this project included data collection of CCR mailings, a feasibility study of national data, a literature review on CCR legislation and an examination of Poisson models.