

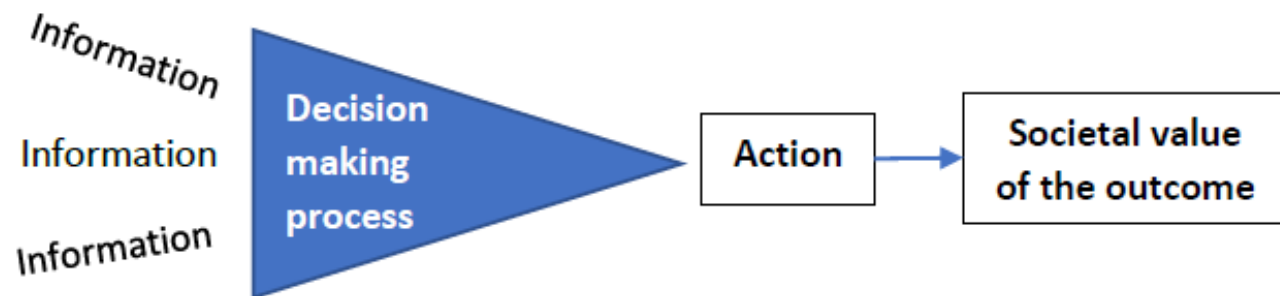
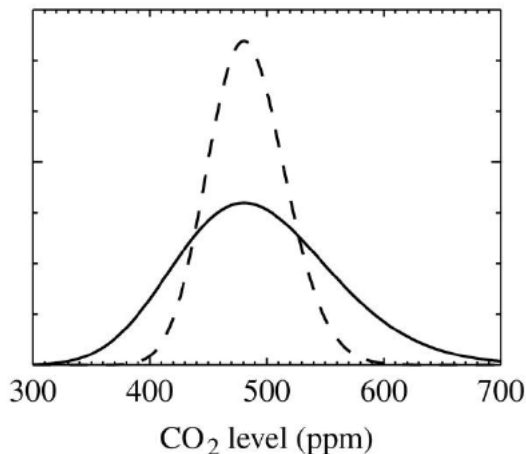


Measuring the Value of Digital Repositories

A Microeconomic Approach

What is the Value of Information (VOI)?

- **The Value of Information (VOI):** The gains that result from making better decisions that are based on additional information in the presence of uncertainty.
- Gains depend on:
 1. The reduction in uncertainty of the decision maker that is provided by the additional information; and
 2. What is at stake as an outcome of the decision.



How can we estimate the VOI from digital repositories?

- Compare the value of an outcome of a decision made **prior** to the existence of the repository to the value of an outcome of the same decision made **after** the repository is made available
 - Need to control for observable and unobservable time-varying factors
- Compare the value of an outcome of a decision made by an individual/organization **with access** to the repository to the value of an outcome of a decision made by another individual/organization **without access** to the repository
 - Need to control for differences between the individuals and organizations
 - Need to control for informational spillovers

- **Examples??**

The VALUABLES Consortium

- **VALUABLES: The Consortium for the Valuation of Applications Benefits Linked with Earth Science**
- 5-year cooperative agreement between RFF and NASA
- Objectives:
 1. Build an effective, interdisciplinary community of practice;
 2. Provide community coordination;
 3. Advance the application of VOI methods;
 4. Convey the value of applied benefits of Earth observations to new stakeholders; and
 5. Reframe how Earth observations values are realized and investment in observing systems made by asking “what are the compelling social questions and opportunities” that can and must be addressed through these technologies.