

# RAND's Approach to Robust Decision Making:

Some Diverse Examples



## DR. MARK BERNSTEIN

Tuesday, October 11, 2005, at 9:30 a.m.  
Brickyard Orchid House, Room 175

The CEO of a large corporation wants to develop global markets for the firm's products with a minimum of risk to its existing business structure. A congressional committee is about to tackle the problem of keeping the Medicare program solvent for the next fifty years and beyond. A young married couple needs an investment strategy that will reliably produce funds for their children's college education and for their own retirement.

***These decisions, and dozens of others like them, must be made in the present; but they have extremely important consequences for the future. No matter how much information is collected, how carefully the options are laid out, how comprehensively the risks are identified, the element of surprise can never be ruled out.*** Therefore there are always risks and uncertainties in decisions we make. RAND has developed a methodology called robust decision making (RDM) that avoids the pitfalls of "best-guess" forecasts and helps us find solutions that will work in most of the 'foreseeable' futures.

This talk will provide a brief overview of the approach, but more importantly will provide a look at how we have applied this approach to a diverse set of problems. These will be presented in a series of vignettes and will take a look at decision making problems as diverse as resource planning for an electric utility, to a risk assessment by a philanthropic organization, to uncertainty in future costs for providing water for a future Palestinian state. In the talk I will also take a brief look at ongoing efforts in water planning and climate change policy.

Dr. Bernstein is a Senior Policy Researcher at the RAND Corporation. His research areas span across a broad range of issues in energy, environment, and water, including economic impacts of technologies and policies, efficiency and renewable energy, climate change policy, technology diffusion among others. He has published articles on implications of emissions trading, impacts of energy efficiency, and comparison of costs of coal and nuclear and alternative energy systems, as well as assessing the impacts of energy options in economic development. Dr. Bernstein holds a Ph.D. in Energy Management and Environmental Policy from the University of Pennsylvania and a Masters and Bachelors in Mathematics.

**For more information or to RSVP** for this lecture, please contact Michelle Schwartz at 480-965-3367 or [Michelle.Schwartz@asu.edu](mailto:Michelle.Schwartz@asu.edu).