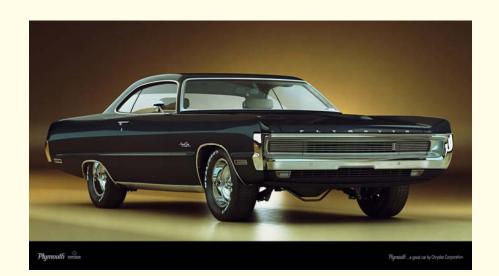
### Confessions of a Data User

Stan Meiburg, Director
Graduate Studies in Sustainability



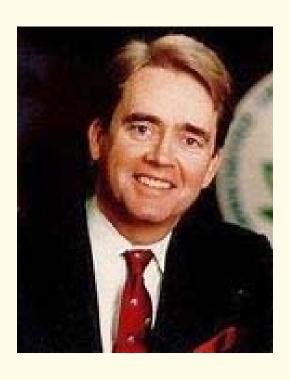
NEMC, August 5, 2020

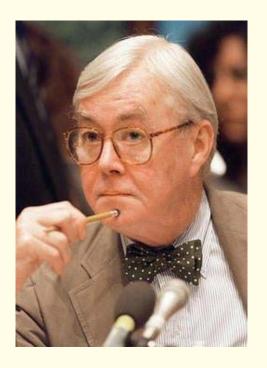














#### PFOA and PFOS





#### Dioxin Chickens











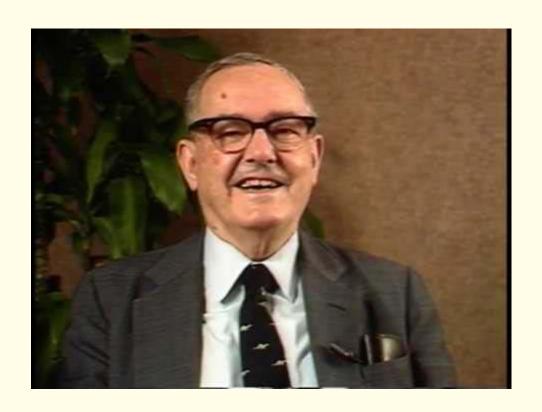








#### **Bounded Rationality**



Herbert Simon



#### What About Information We Aren't Measuring?

"A cynic is a man who knows the price of everything and the value of nothing"

Oscar Wilde, "Lady Windermere's Fan"



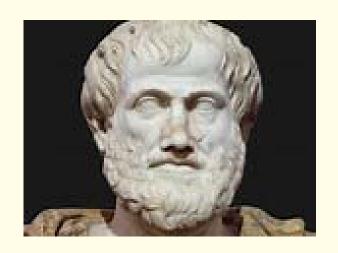


#### When Is More Information A Good Thing?

- When decision criteria are:
  - Established
  - Widely accepted
- When information is available timely
  - Fast and approximate vs. slower and in depth
- When you can adjust prior decisions (adaptive management)
- When precision is appropriate to the decision



#### **Appropriate Decisions**



"...precision is not to be sought for alike in all discussions ... it is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits"

--Aristotle, Nichomachean Ethics



#### Opportunity Costs of Inappropriate Precision

- Loss of time to act
- Distraction by lower risks
- Misallocation of scarce resources
- Dismissal of that which can't be measured
- False confidence in results
- Neglect of critical assumptions



#### Dealing with Decision-Makers

- 1. Know Your Audience
- 2. Remember You Aren't Them
- 3. Tell Them What They Need To Know, Not What You Need To Tell Them
- 4. If You Are Them, Communicate What You Need To Know And By When





## "You Don't Need To Be A Weatherman To Know Which Way The Wind Blows"

Bob Dylan, "Subterranean Homesick Blues, 1965



# Thank you!! Questions??

