### Promises and Limitations of Performance Measures

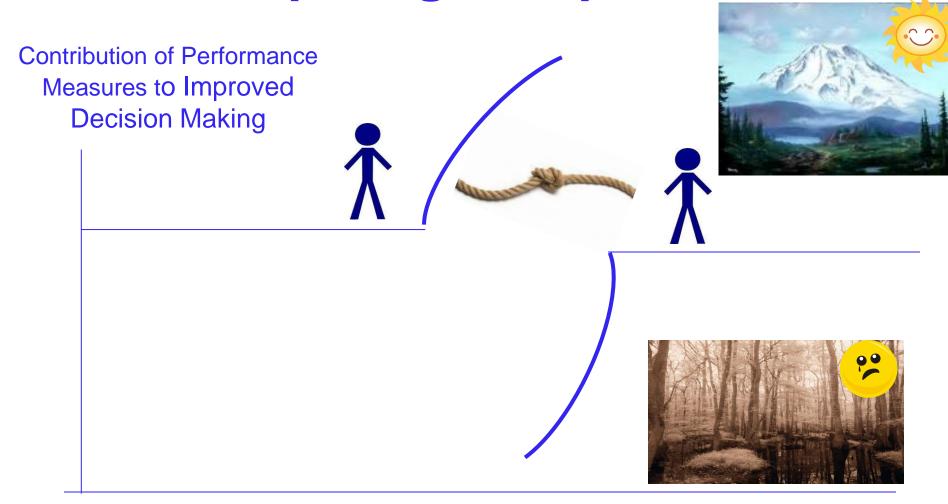
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**Competing Perspectives** 



Tug-of-war Assessments of the Promises and Limitations of Performance Measures

## "It's a condition we confront-not a theory". Grover Cleveland

"Not everything that counts can be counted, and not everything that can be counted counts". Albert Einstein

### **Uses of Performance Measures**

- Monitoring
- Benchmarking
- Evaluation
- Foresight
- Advocacy

### **Old or New Wine?**

 Performance measures are basic, indispensible elements of informed decision making

 Performance measures are the dependent and independent variables of longstanding and diverse research traditions

What is New?

### What is New

- Performance measures are increasingly mandated components of appropriation decisions and oversight reviews
- Dominant "ethos": Heightened belief that better measures will lead to better (evidence-based) decisions
- Impressive stream of new data sets and analytical techniques
- Increased political/policy trends towards performance based budgeting

# Promises and Limitations are a Function of Decision Making Contexts

- Who is asking question?
- What question is being asked?

- What is the purpose of the question?
- What role does research play in fulfilling the agency's mission?

### **Context Again**

 Retrospective Assessments of Realized, Observed, Measured Impacts

 Prospective Assessments of Research Advances, Coupled with Forecasts of How These Advances will Contribute to Societal Objectives

# State of the Art: Research Performance

 Multiple performance measures-37+; increasing in number

Multiple methodologies; increasing in number

Numerous scorecards; increasing in number

# Promises & Limitations: Research Performance

#### **Promises**

- Objectives provide useful baseline for assessing each of 4 modalities of accountability (finance; equity; use of power; performance).
- Well defined objectives and documentation of results facilitate communication with funders, performers, users, and others.
- Performance measurement focuses attention on the end objectives of public policy, on what's happened or happening outside rather than inside the black box.
- Performance measurement is a potential prophylactic against the episodic cold fusion-type viruses that have beset the formulation of U.S. science policy.

## Promises & Limitations: Research Performance cont.

#### **Limitations**

- Returns/Impacts to research are uncertain, long-term, and circuitous
- Impacts are typically dependent on complementary actions by agents outside of Federal agency control
- Benefits from "failure" are underestimated
- Specious precision in selection of measures
- Distortion of Incentives
- Limited (public) evidence of contributions to improved decision making

### **Enhanced Promise**

New theories, models, techniques, data sets coupled with strengthening of a community of practice will considerably increase the supply and utilization of research-based, policy relevant performance measures

# BIG "3" FEDERAL SCIENCE QUESTIONS

#### **QUESTION**

 How much should be allocated to Federal research?

- How much to spend across missions/agencies/fields of science?
- Which performers; what allocation criteria?

#### **ROLE OF PERFORMANCE MEASURES**

- Measures do not provide a basis for determining if, say, 3% is too high, too low, or just right.
- Measures/methodologies provide multiple answers, leading to multiple possible decisions
- Potentially of considerable value, but underutilized

### What's the Meaning of All of This?

Not a scorecard, balance sheet, or the economist's, "on the one hand, on the other hand" presentation.

- Context
- Limitations
- Do No Harm