

# Considering the Impact of a Research Grantmaker

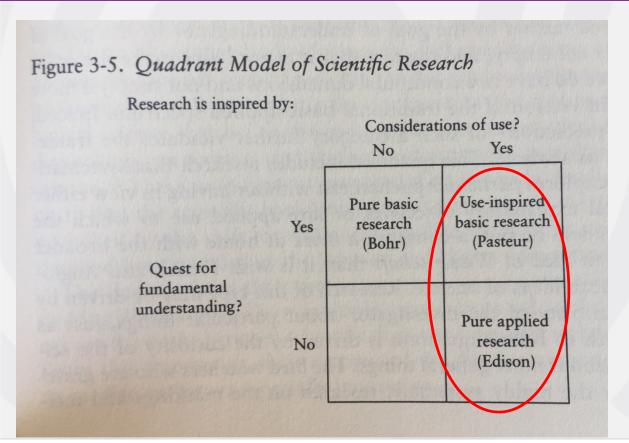
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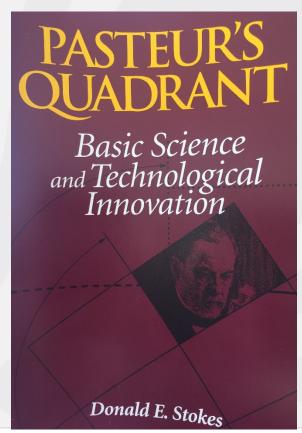


# My Remarks Today

- 1. Impact on what?
- 2. Time frame for impact
- 3. Approaches to gauging impact
- 4. Implications for maximizing the impact of IES grantmaking









Conceptualizing impact: Stokes's quadrant model

- What do we mean by "use"?
  - Tactical vs instrumental vs conceptual use
- Limits of the linear rational model of evidence use
  - If only life were so simple!
  - In fact, use of research evidence is complex, multifaceted, competing with other types of evidence and evaluated in contexts of values



#### Reframing Evidence-Based Policy to Align with the Evidence

BY KIMBERLY DUMONT

An emerging body of evidence featuring the social side of evidence use—infrastructure, capacity, relationships, and trust—points the way toward a more nuanced understanding of evidence use.



- Research
  - New knowledge leads to new questions
  - Manifested in tangible products e.g. books, journal articles, conference presentations
  - > Assessed by counting citations
- Researchers
  - Skill development
  - Networking, synergies
  - Productivity offers one, relatively narrow approach to assessment



# Policy

- New measures are emerging that make it possible to capture the instrumental use of research
- Conceptual use is important but difficult to capture
- Practice = delivery of service
  - > Focus on instrumental and conceptual use of research in practice
  - > Scaling up is an inherent challenge



# **Time Frame for Impact**

- Most research grants 2-3 years duration
- O But publications may not emerge for years
- Time frame to policy impact is even longer



# Time Frame for Impact

One study in the medical field estimated 20 years from initial discovery to effective intervention

"Of 101 very promising claims of new discoveries with clear clinical potential that were made in major basic science journals between 1979 and 1983, only five resulted in interventions with licensed clinical use by 2003 and only one had extensive clinical use."



D. G. Contopoulos-Ioannidis et al., "Life cycle of translational research for medical interventions," *Science 321* (5894) 2008, pp. 1298-1299.

# **Shortening the Time Frame**

- 1. Improve the use of research evidence
  - Support studies that ask questions whose answers matter to decision-makers
  - Research based in partnerships is one approach to doing this
  - WTGF Example: Institutional Challenge Grant
    - ✓ University partners with non-profit or public agency
    - ✓ Jointly develop a research plan, and carry out the research with fellows paid 2/3 by the grant, 1/3 by the university
    - ✓ Build capacity in the agency to use evidence
    - ✓ Shift incentives in the university to support partnershiporiented, engaged scholarship



# **Shortening the Time Frame**

- 2. Support research syntheses in addition to new empirical studies
- WTGF Example: Rapid Response Research Grants
  - ✓ Researchers synthesize existing research and contextualize it for a particular situation
  - ✓ Non-profit or public agency leaders present an "engagement plan" for how they will use the evidence provided in the synthesis

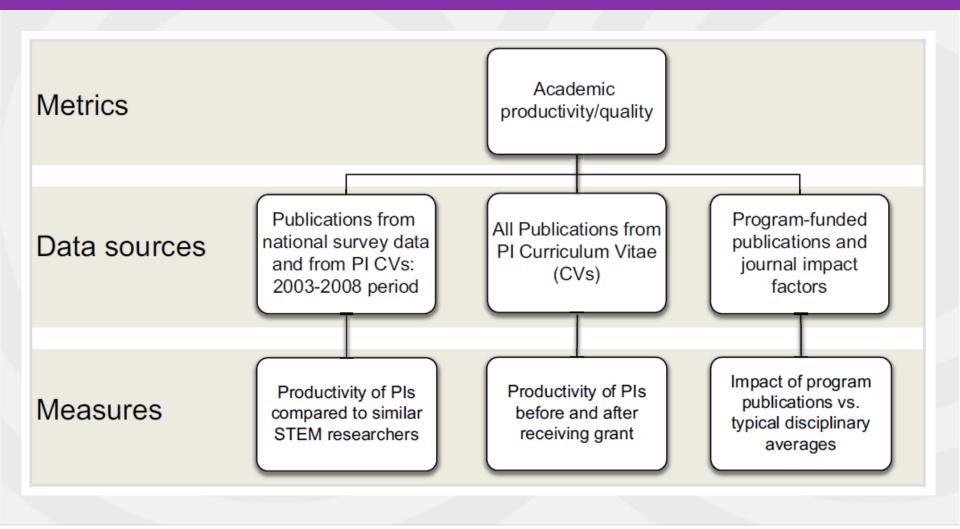


# **Examples of Impact Assessments**

- Most research assessments focus on impact on research
  - ➤ As we've seen, impact on subsequent research is only one of several outcomes of interest
  - For "use-inspired basic research" and "pure applied research" this may not be the key impact
- Gauging impact on other outcomes has proved challenging due to measurement difficulties, the long time frame, and the diffuse nature of policy effects



## **Bibliometric Assessment**





C. Milesi et al., "Charting the impact of federal spending for education research: A bibliometric approach." *Educational Researcher 43* (7) 2014, pp. 361-370.

### **Bibliometric Assessment**

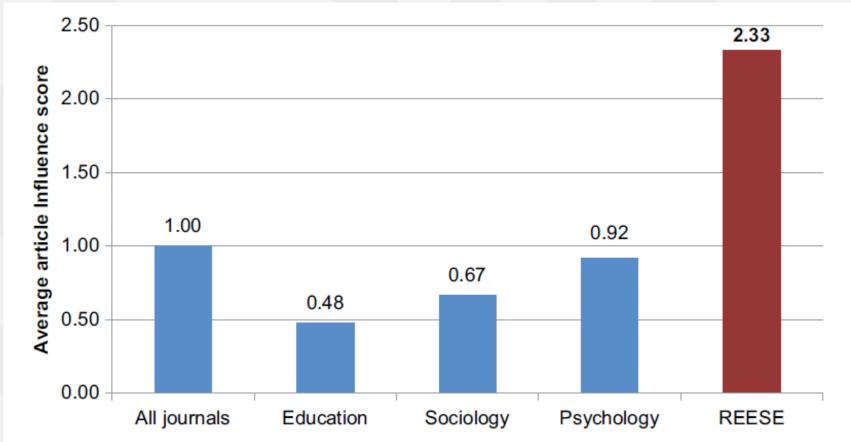
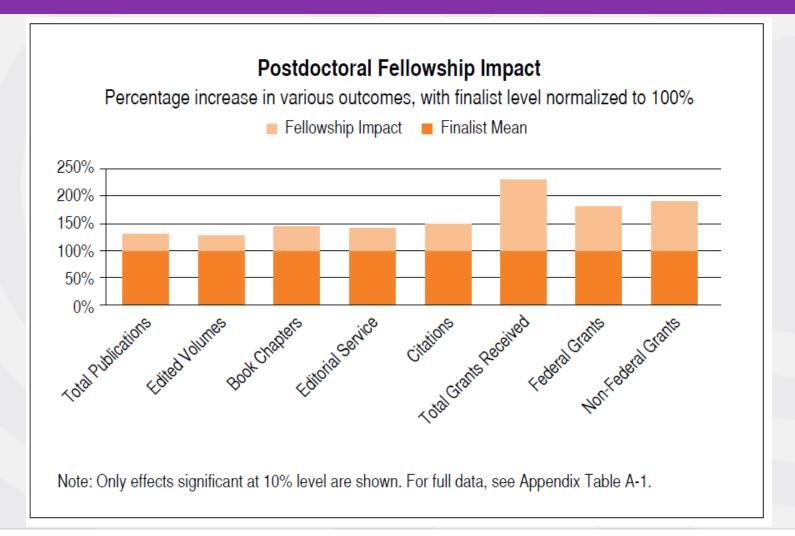


FIGURE 3. Impact of Research and Evaluation on Education in Science and Engineering (REESE) publications compared to Journal Citation Reports disciplinary averages



C. Milesi et al., "Charting the impact of federal spending for education research: A bibliometric approach." *Educational Researcher* 43 (7) 2014, pp. 361-370.

# **Bibliometric Assessment**





L. Hedges et al., "Statistical evaluations of the Spencer fellowship programs." In *Learning to Work Better*, Spencer Foundation 2011.

# The Payback Fra

# Qualitative judgments

#### Exhibit 5. Payback Fra Categorization of Bo from Research Pro

#### **Primary Outputs:**

- Knowledge productivity; and
- Research targeting and capacity

#### Secondary Outputs:

Informing policy and clinical pract

#### **Outcomes:**

- Effects on health and healthcare and
- Broader economic and social im

Madrillion Group, *The Min Interactions and Health Pi Evaluation: Final Report* (Institutes of Health, 2011)

#### Influence on Policy

#### National or International Level

- Demonstrated the medical condition of "white coat" hypertension and the value of ambulatory home-based blood pressure monitoring. As a direct result of this work, the US Center for Medicare and Medicaid Services agreed to reimburse ambulatory blood pressure monitoring in patients suspected of suffering from "white coat hypertension".
- Demonstrated that a specific biofeedback intervention was efficacious in patients with a specific form of fecal incontinence. As a result, treatment guidelines for management of this problem are being revised to incorporate a recommendation that this intervention be offered as a preferred form of treatment.

  Based on research funded under the MBIH center program,
- the PI conducted several studies demonstrating the poverty and early adverse stressful events have important and long-lasting effects on brain development and executive function in children. As a result of this work, he was invited to join the National Scientific Council on the Developing Child, a national scientific advisory group that advises US governors and state legislators on best science and best practices in child development. The research is also being cited and used by the Canadian Ministry for Children and Youth

# Implications for Maximizing the Impact of IES Grantmaking

- Adopt a multifaceted conception of impact
  - > On research, researchers, and consumers
  - Consider conceptual as well as instrumental use of evidence
  - Recognize the "social side" of evidence use
- Recognize the value of research studies that stimulate subsequent research
- Track the contributions of researchers supported in IES training programs



# Implications for Maximizing the Impact of IES Grantmaking

- O Consider strategies to support research that has actors poised to act once the research questions are answered
  - This might involve partnerships, or other strategies to ensure there is an opportunity for engagement at hand
- O Ultimately, the goal is to fund research that makes a difference in the long run
- That's a challenging aim, but the more reflective we are, the more likely our progress

