

17-18 October 2019, Washington DC

#### Room 4025, 1.45 - 3pm

# Measurement tools

Vivian Tseng (Chair)

Drew Gitomer

Sunil Iyengar

Sean Newell







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# Vivian Tseng (Chair)

Senior Vice President, William T. Grant Foundation







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# Drew Gitomer

Rose & Nicholas DeMarzo Chair in Education, Rutgers Graduate School of Education





# Studying the Use of Research Evidence and its Influence on Policy and Practice

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RUTGERS GRADUATE SCHOOL OF EDUCATION

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IMPACT OF SOCIAL SCIENCES AND HUMANITIES
ON SOCIETY
OCTOBER 2019



# Studying the Use of Research Evidence:

A Review of Methods

Drew H. Gitomer Rutgers Universit

Kevin Crouse Rutgers University

A William T. Grant Foundation Monograph February 2019

#### Indicators and Cases

- ► The Indicator Approach
  - Focus on counts and other metrics that are indicators of effectiveness of research enterprise
  - Claims about effects (e.g., number of publications, citations, policy enactments, frequency of desired behaviors)
  - Broad generalization goals does social science research make a difference?
- The Case Approach
  - ▶ Focus on understanding dynamics of policy design, implementation, and impact and connections with research
  - Dynamics studied through focus on different dimensions of research use including influences, targets, and claims
  - ▶ Theoretical generalizations how can theory be applied to broader sets of cases?

#### Influences on Use of Research Evidence

- Rejection of naive theories of use of research evidence (URE) replaced by efforts to understand the complex factors that influence URE
  - Political Context
  - Organizational Context and Practices
  - Knowledge and Capacity (Individual and Organizational)
  - Relationships
  - ► Intermediaries/Brokers/Translation
  - Constraints

#### Targets of Research Use

- ▶ Studies focus on different targets of research use:
  - ▶ Development of particular policies, statutes, or decisions (instrumental use)
  - ► The role of research in shaping perspectives (conceptual use)
  - Using research to provide support for particular policy positions (symbolic use)

#### Claims About Research Use

- Studies vary in the kinds of claims that are made on the basis of URE studies.
  - ► Thick description leads to descriptive claims about how research is used and the mechanisms of use.
  - Sampling strategies are used to make claims about the relative presence of particular understandings or beliefs within populations.
  - Experiments and quasi-experiments are used to make causal claims about the effects of using research evidence.

## What Methods are Used to Study URE?

- ► Two categories of methods:
  - Data collection methods
    - ► Interviews
    - Surveys
    - Observations
    - ▶ Document analysis
  - Study design methods
    - ▶ Case studies
    - ► Social network analysis
    - ► Experiments and quasi-experiments

# The Strengths and Limits of Particular Methods

- Problems in this sphere require multiple and complementary methods.
- For any particular method there are known threats to valid interpretation.
- Specific methods are best suited to address certain kinds of questions.
- Other questions are best addressed by complementary methods.

#### Questions That Interviews Can Address

- How did URE (and other factors) influence your thinking and/or decisions about policy or practice?
- What are the conditions, experiences, and/or interactions that influence how you or your institution thinks about and/or engages with URE?
- What are the ways in which your institution and individuals in your institution engage with URE?
- ▶ How has your URE or your institution's URE changed over time?

## Questions That Surveys Can Address

- ▶ What do you believe about some aspect of URE?
- What have you experienced with respect to some aspect of URE?
- What practices related to URE have you engaged with?
- What do you know or understand about some aspect of URE?

## Questions That Observations Can Address

- ▶ What URE-related information in policy and practice is communicated?
- Which individuals participate, and how do they interact, in targeted contexts about URE in policy and practice?
- What roles regarding URE in policy and practice do individuals take on?
- What actions and/or decisions about URE in policy and practice are evident?

## Questions That Document Analysis Can Address

- ▶ To what extent is URE represented in the process or outcomes of policy and/or practice development and implementation?
- To what extent does documentary evidence converge with other evidence about URE acquired through other qualitative methods?
- To what extent do artifacts demonstrate that URE changes over time in regard to one focal organization or context?

## Questions That Social Network Analysis Can Address

- Who are the primary brokers of research within a network, as defined by those who are the primary connections between people?
- What pathways connect policymakers to researchers investigating relevant policy contexts?
- To increase URE, which positions would be the best to target because they have the most direct connections to potential research users?
- How do network characteristics correlate with the frequency with which research is cited in policymaking meetings?

## Questions That Experiments Can Address

- ► To what extent are specific interventions designed to increase the likelihood of URE having an effect?
- Does URE lead to improved outcomes?

## Questions That Case Studies Can Address

- How do relationships among individuals and entities within an institution influence URE?
- To what extent are self-reports of URE reflected in policymaking and practice that is observed or evident in artifacts such as policy documents?
- How does URE change within a case over time and context?
- How and why does URE vary across cases?

## Closing Thoughts

- ► The case study approach of URE has yielded important findings for how research evidence is used in policy and practice.
- There are implications to be drawn from this work in developing indicator systems that ask whether research programs are having an impact:
  - the nature of questions;
  - the nature of evidence;
  - the characteristics and differentiation of respondents; and
  - ▶ the use of convergent methods to provide deeper insight into the meaning of indicator metrics.



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#### Measurement tools

# Sunil Iyengar

Research & Analysis Director, National Endowment for the Arts





#### Measuring the Value and Impact of Arts and Culture

Sunil lyengar Director, Research & Analysis

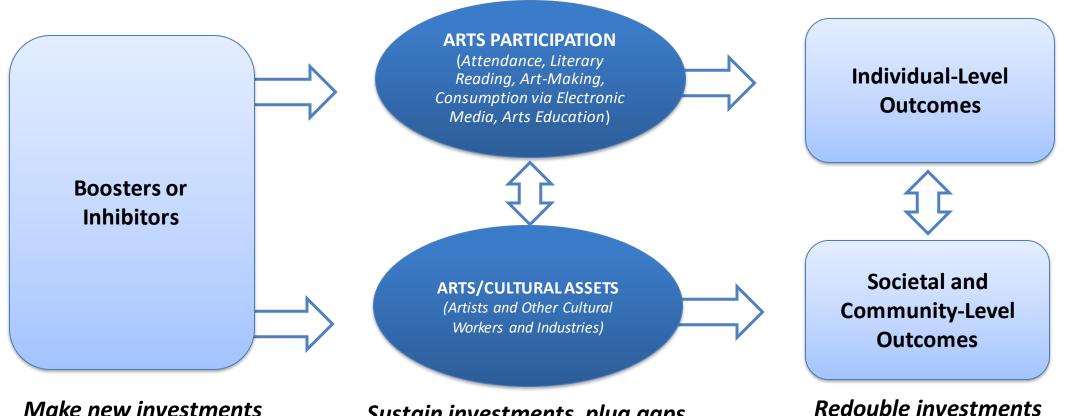
National Endowment for the Arts

email: <a href="mailto:research@arts.gov">research@arts.gov</a>

Oct. 17, 2019



## Framework: Arts Endowment Research Agenda



Research type: Exploratory

Sustain investments, plug gaps

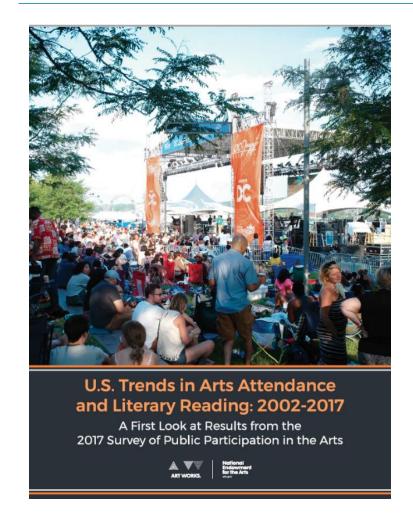
Research type: Descriptive

Redouble investments

Research type: Experimental, Quasi-Experimental



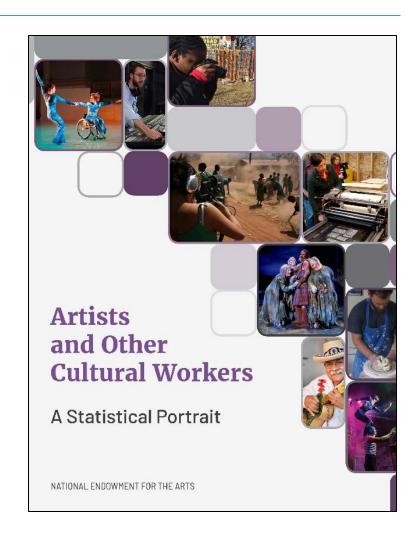
## Publishing Reliable Statistics on Arts and Culture





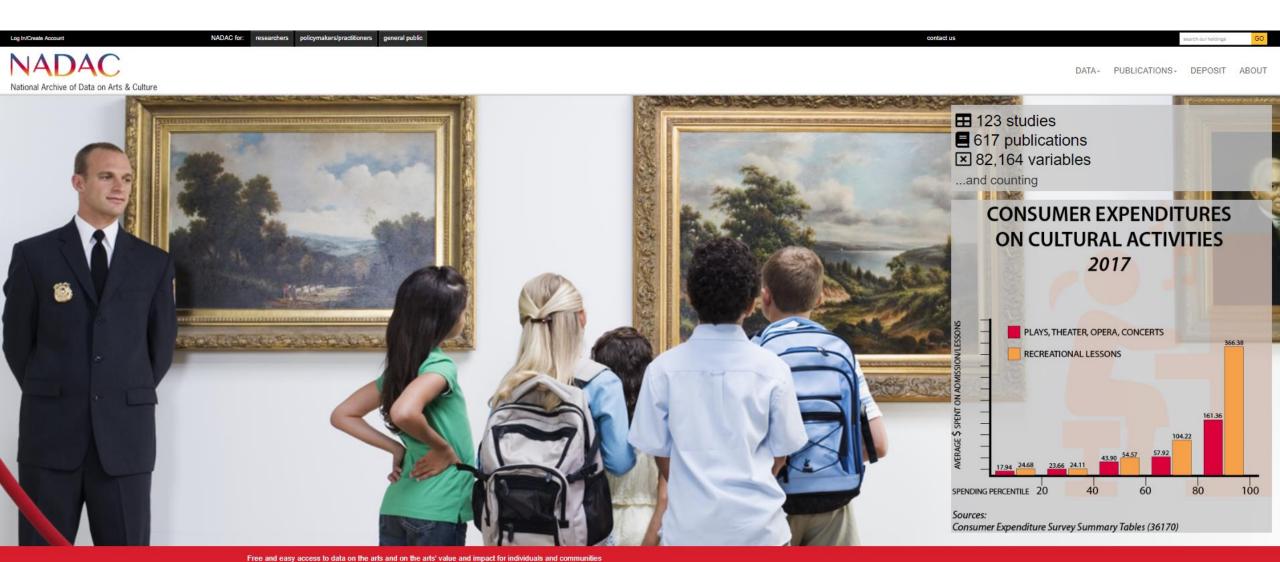








#### National Archive of Data on Arts & Culture



A VV Natio

ICPSR

# Interagency Task Force on the Arts and Human Development























#### **Related Research Publications**









**EXPLORE** 

**EDUCATION** 

**ABOUT** 





Sound Health

Children's Music Engagement

Sound Health is an initiative to expand our understanding of the connections between music and wellness: How music is processed by our brain, how it might impact our development, and how in some cases it might be used as a medical intervention for patients with a variety of conditions.

Launched in 2016 under the leadership of Renée Fleming and Dr. Francis Collins, Sound Health is a partnership between the Kennedy Center and National Institutes of Health, in association with the National Endowment for the Arts. In its role as the largest funder of biomedical research in the world, the NIH is supporting studies that explore these key questions. And in its role as the nation's performing arts center, the Kennedy Center seeks to provide a platform for artists, researchers, neuroscientists, and music therapists to bring this fascinating work to a broader public.

Watch performances and talks from Sept 7-8 Sound Health: Music and the Mind



# NATIONAL # ARTS

arts.gov/creativeforces

# CREATIVE FORCES

#### **PARTICIPATING LOCATIONS:**



#### National Endowment Research Grants in the Arts



The Research Grants in the Arts program aims to foster public knowledge and understanding about the contributions of the arts by expanding and promoting evidence of the arts' value and/or impact

\$10,000-\$100,000 with 1:1 match

**Application deadline: Oct. 15, 2019** 

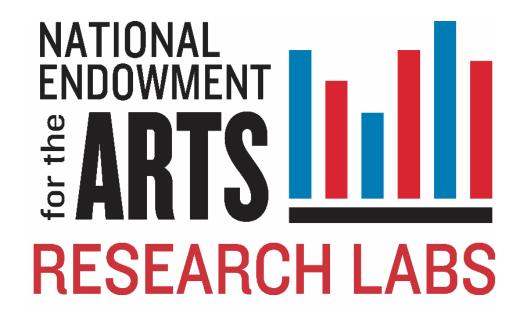


#### **National Endowment for the Arts Research Labs**

#### Transdisciplinary partnerships:

- Health, & Social/Emotional Well-Being
- Creativity, Cognition, & Learning
- Entrepreneurship, & Innovation

Up to \$150,000, with 1:1 match





## Arts Research: Novel Measurement Techniques

1) "Footprint" of arts organizations and arts funders

2) Measuring "intrinsic" impacts of arts engagement

3) The arts and social well-being indicators

4) Measuring creativity in the brain



# **Questions?**

Email research@arts.gov

Website: <a href="https://www.arts.gov/artistic-">https://www.arts.gov/artistic-</a>

fields/research-analysis





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#### Measurement tools

# Sean Newell

Chief Executive Officer, Researchfish, United Kingdom







# researchfish

by interfolio

# Measuring the Societal Impact of SSH

Sean Newell, CEO, Researchfish

The Impact of Social Sciences & Humanities on Society — AESIS, Washington DC

October 2019

# What is Researchfish?

We are an organization that provides technology that tracks funded research and helps to evidence impact

### Brief history









#### Today:

100,000+ Researchers 3,000,000+ outputs 140,000+ awards US \$65 billion tracked







# What is Researchfish?



Cloud-based technology that brings together information related to outcomes, outputs and impact of academic research



15 outcomes types in addition to publications (inc. Books, Book Chapters, Monographs)



Connected to over 17,000 external data sources, including Nielsen ISBN. Web of Science



Data harvested where possible and supplemented by researchers to ensure completeness and quality



Results in the creation of a consistent, structured data set



International community of funders (163 organizations globally) to share best practice and benchmark



### What Information is Collected?

#### New knowledge

- Publications, Books, Monographs
- Research Tools and Methods
- Research Databases and Models

## Knowledge Transfer and Exchange

- New products (creative, artistic, software, etc)
- IP & Licensing
- Spin Outs

#### Wider engagement

- Influence on policy, practice and the public
- Engagement activities

## Developing human capacity and skills

- Next destination and skills
- Awards and recognition
- Use of facilities and resources

## Further research and collaborations

- Further funding
- Collaboration and partnerships

#### Other outputs

Funder specific outputs (can be customized)



# Policy outcomes 2018



Let's focus on difficult to measure impacts: policy outcomes 1,032 awards totally \$0.6M reported 5,484 outcomes.



How can we understand what impact these awards really have?



## Outcomes vs impact

#### We collect information on

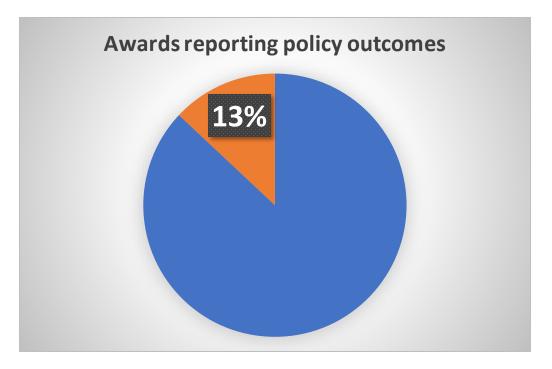
- Type of activity (e.g membership of policy committee, citation in policy document, giving evidence, training etc)
- Scale of outcomes (regional, national, ... multi-continental)
- Industrial sector/area

Most importantly, we record whether the outcome has any impact.

Health, economic, educational, societal, no impact yet



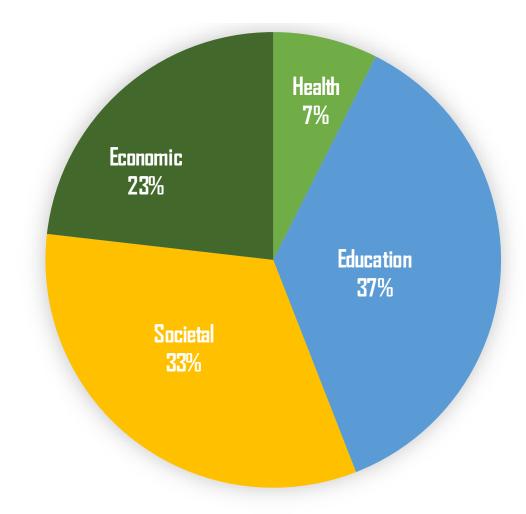
### High level data: awards level



















Organizations are able to answer these questions

Can I identify the pathway to impact?

Can I support the researchers to continue to do great work?

Can I improve translation of outcomes into impacts?

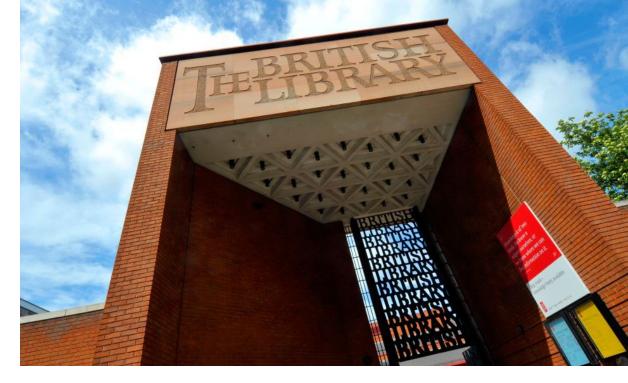
Am I maximizing the impact from my research portfolio?

Am I achieving my strategic funding objectives?



# **Strategy of Impact Conference 2019**

- 12th November 2019 British Library, London
- Theme Building the Community
- Morning keynotes
- Afternoon streams and workshops:
  - Research on research
  - Analysis and visualization of data
  - Data linkage and case studies
- <a href="https://www.researchfish.net/conference2019">https://www.researchfish.net/conference2019</a>





Professor Virginia Murray, Head of Global Disaster Risk Reduction, Public Health England



Sir Alan Wilson, Director of Special Projects, The Alan Turing Institute



Natacha Wilson, Founder and Director, Cambridge Insights



Dr Jim Smith, Director of Science, Wellcome





National Organization of Research Development Professionals

# 12th Annual NORDP Research Development Conference

San Antonio, TX, May 17-20, 2020



## > Thank you!





## The Impact of Social Sciences and Humanities on Society

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#### Measurement tools

#### Panel discussion and Q&A

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## The Impact of Social Sciences and Humanities on Society

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Multiple problems, multiple methods, multiple perspectives.

Context matters but standardization is important in order to join the community







## The Impact of Social Sciences and Humanities on Society

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### Up Next

3pm Coffee break

3.30-5.15pm Plenary contributions and interactive debate

Rasmuson Theater



