### Welcome to

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Email Ben at bgoodrich@cossa.org



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- ☐ This Month's <u>HEADLINES</u>
- ☐ This Month's <u>DEEP DIVE</u>: National Academies' Decadal Survey of Social Science Applications for Intelligence Analysis
- ☐ This Month's HOMEWORK: What you can do this month



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Division of Behavioral and Social Sciences and Education National Academies of Sciences, Engineering and Medicine





































#### MEMBERSHIP ORGANIZATIONS

Academy of Criminal Justice Sciences

African Studies Association

American Association of Geographers

American Council of Learned Societies

American Evaluation Association

American Historical Association

American Psychosomatic Society

Association for Behavioral and Cognitive Therapies

Association for Public Policy Analysis and Management

Association of Academic Survey Research Organizations

Association of American Law Schools

Association of Research Libraries

Council of Colleges of Arts & Sciences

Council on Social Work Education

**Economic History Association** 

History of Science Society

Midwest Sociological Society

National Association of Social Workers

National Council on Family Relations

North American Regional Science Council

Rural Sociological Society

Social Science History Association

Society for Prevention Research

Society for Research on Adolescence

Society for Social Work and Research

Society for the Psychological Study of Social Issues

Society of Behavioral Medicine

Southern Political Science Association

Southern Sociological Society

Southwestern Social Science Association

#### Colleges & Universities

Arizona State University

**Boston University** 

**Brown University** 

Carnegie Mellon University

Columbia University

Cornell University

**Duke University** 

Fielding Graduate University

George Mason University

Georgetown University

Harvard University

Indiana University

Johns Hopkins University

Massachusetts Institute of Technology

Michigan State University

North Carolina State University

Northwestern University

Pennsylvania State University

Princeton University

Rutgers, The State University of New Jersey

Stanford University

Texas A&M University

The Ohio State University

University of Arizona

University of California, Berkeley

University of California, Irvine

University of California, Los Angeles

University of California, Santa Barbara

University of Colorado, Boulder

University of Chicago

University of Georgia

University of Illinois

University of Iowa

University of Maryland

University of Michigan

University of Minnesota

University of Nebraska, Lincoln

University of North Carolina, Chapel Hill

University of Oklahoma

University of Pennsylvania

University of Pittsburgh

University of Texas, Austin

University of Texas, San Antonio

University of Virginia

University of Washington

University of Wisconsin, Madison

Virginia Tech

Yale University

#### **CENTERS & INSTITUTES**

American Academy of Arts and Sciences

American Academy of Political and Social Science

Center for Advanced Study in the Behavioral Sciences

Cornell Institute for Social and Economic Research

Institute for Social Research, University of Michigan

Institute for Social Science Research, University of

Massachusetts, Amherst

NORC at the University of Chicago

**RTI International** 

Social Science Research Council

### **Quick Questions**

Use the chat box to ask a question.



More opportunities for Q&A at the end.



### This Month's Headlines

#### **CONGRESS**

- House Committee Approves FY 2020 Spending for NIH, CDC, BLS, AHRQ, ED
  - More: <u>www.cossa.org/2019/05/14/house-committee-approves-fy-2020-spending-for-nih-cdc-bls-ahrq-ed/</u>
- House NSF, Census, DOJ bill expected this week
  - More: www.cossa.org/advocacy/funding-updates

#### **EXECUTIVE BRANCH**

- National Science Board Accepting Nominations
  - More: www.nsf.gov/nsb/index.jsp
- Minerva Initiative Releases 2019 Funding Opportunity Announcement, Topics of Interest
  - More: <u>www.cossa.org/2019/05/14/minerva-initiative-releases-2019-funding-opportunity-announcement-topics-of-interest/</u>
- NSF Seeks Nominations for Advisory Committees
  - More: <u>www.cossa.org/2019/04/29/nsf-seeks-nominations-for-advisory-committees-2/</u>
    - NIH Seeks Examples of Behavioral and Social Science Accomplishments
      - More: https://obssr.ideascale.com/

#### **COMMUNITY**

- National Academies Seeking Community Input on First Phase of Alzheimer's Decadal Survey
- More: <a href="http://sites.nationalacademies.org/DBASSE/BBCSS/DBASSE">http://sites.nationalacademies.org/DBASSE/BBCSS/DBASSE</a> 192126
- National Academies Releases Reproducibility and Replicability in Science Report
  - More: <u>www.nap.edu/catalog/25303/reproducibility-and-replicability-in-science</u>

#### COSSA

- 70+ social science advocates on Capitol Hill!
  - More: www.cossa.org/event/2019-advocacy-day
- Development Scholar Joseph Assan Answers "Why Social Science?"
  - More: www.whysocialscience.com
- Testimony submitted on FY 2020 science funding
  - More: www.cossa.org/advocacy/funding-updates



WASHINGTON UPDATE

Subscribe for more news: www.cossa.org/washington-update

### **Quick Questions**

Use the chat box to ask a question.



More opportunities for Q&A at the end.



### Deep Dive



A Decadal Survey of the Social and Behavioral Sciences: A Research Agenda for Advancing Intelligence Analysis The National Academies of SCIENCES + ENGINEERING - MEDICINE

CONSENSUS STUDY REPORT

### OF THE SOCIAL AND BEHAVIORAL SCIENCES

A Research Agenda for Advancing Intelligence Analysis





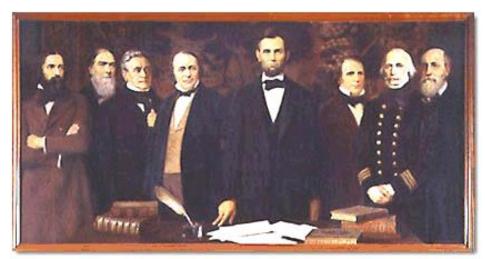
## The National Academies of SCIENCES • ENGINEERING • MEDICINE

BOARD ON BEHAVIORAL, COGNITIVE, AND SENSORY SCIENCES
DIVISION OF BEHAVIORAL AND SOCIAL SCIENCES AND EDUCATION

## A Decadal Survey of the Social and Behavioral Sciences: A Research Agenda for Advancing Intelligence Analysis

Sponsored by the Office of the Director of National Intelligence

## U.S. National Academy of Sciences Charter (1863)



"The Academy shall, whenever called upon by any department of the government, investigate, examine... and report upon any subject of science or art ,..."

# Independent Policy Advice

- Non-profit, 501 c(3) organization
- No direct federal appropriations
- Approximately 200 reports per year, 85% federal
- Six major programs, organized by scientific disciplines
  - Division of Behavioral and Social Sciences and Education
  - Division of Earth and Life Sciences
  - Division on Engineering and Physical Sciences
  - Health and Medicine Division (HMD)
  - Policy and Global Affairs Division (PGA)
  - Transportation Research Board (TRB)

## What is a Decadal Survey?

- Signature type of study conducted by the National Academies
- Gather ideas and feedback from the research community to shape future research initiatives
- The National Academies have conducted over fifteen decadal surveys since 1964, most in the physical sciences

## Statement of Task

Identify opportunities in SBS research that can contribute significantly to the intelligence community's **analytic responsibilities**.

- Support ODNI in developing 10-year research agenda
- Guidance for integrating SBS research

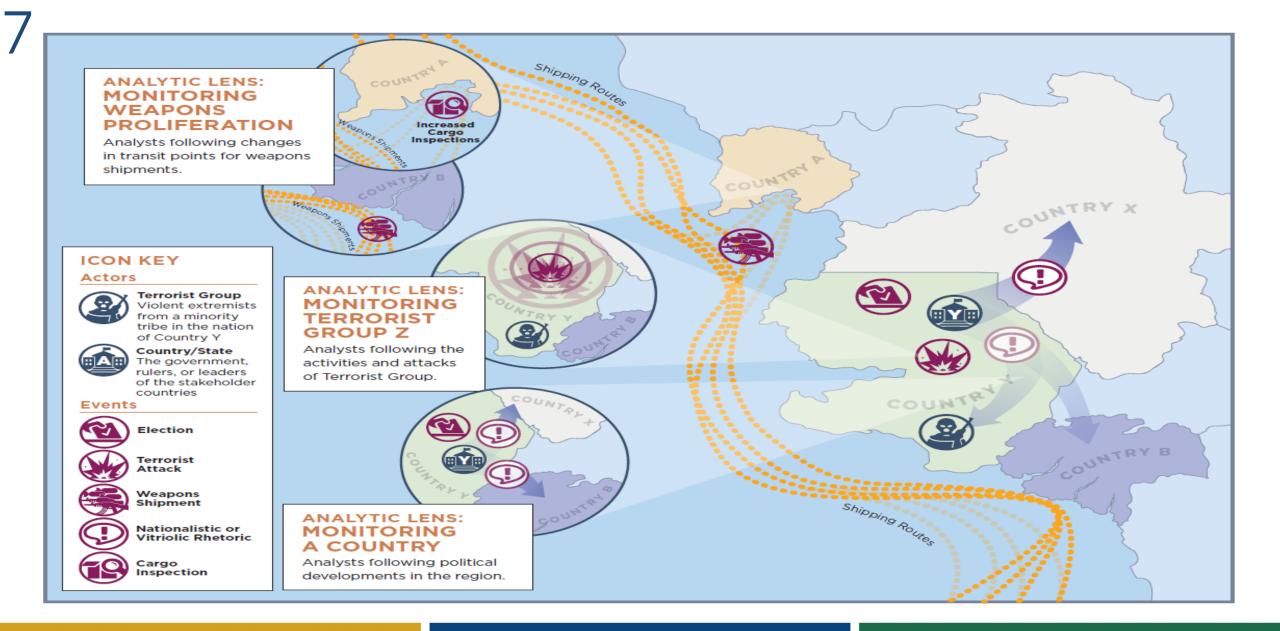


## Two Tracks

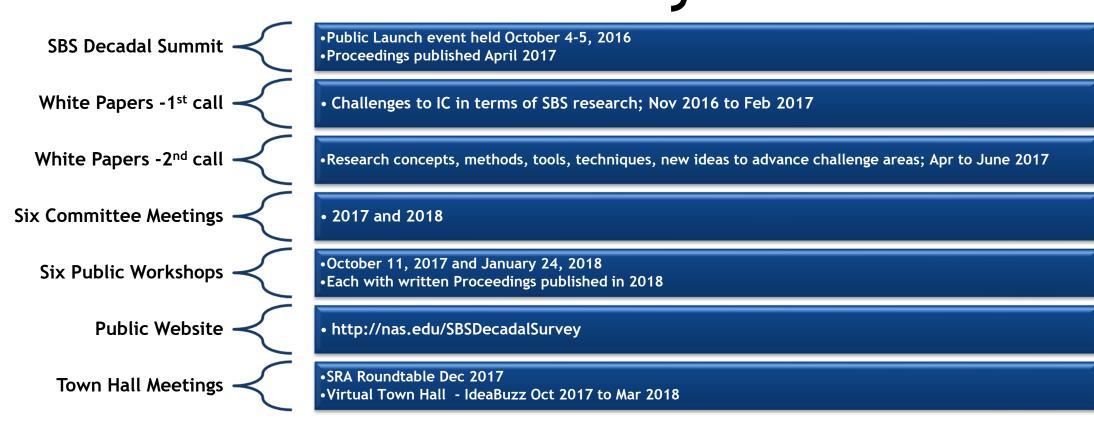
- Understand IC's needs—how analysts do their work
- Explore the SBS landscape for relevant research

## **Study Committee**

		David Matsumoto	Department of Psychology, College of Science and Engineering, San
Paul Sackett (Chair)	Department of Psychology, University of Minnesota		Francisco State University
Gary Berntson	Emeritus Academy Professor of Psychology, Department of Psychology, The Ohio State University	Carmen Medina	MedinAnalytics, LLC
Kathleen Carley	School of Computer Science, Institute for Software Research, Carnegie Mellon University	Fran Moore	The Financial Systemic Analysis and Resilience Center
Noshir Contractor	McCormick School of Engineering & Applied Science, School of Communication, Kellogg School of Management, Northwestern University	Jonathan Moreno (NAM)	Pearlman School of Medicine, Department of Medical Ethics & Health Policy, University of Pennsylvania
Nancy Cooke	The Polytechnic School, IRA A. Fulton Schools of Engineering, Arizona State University	Joy Rohde	Gerald R. Ford School of Public Policy, University of Michigan
Barbara Dosher (NAS)	Department of Cognitive Sciences, University of California, Irvine	Jeffrey W. Taliaferro	Department of Political Science, Tufts University
Jeffrey Johnson	Department of Anthropology, University of Florida	Gregory F. Treverton	School of International Relations, University of Southern California
Sallie Keller	Social and Decision Analytics Division, Biocomplexity Institute, University of Virginia	Jeremy Wolfe	Brigham & Women's Hospital, Departments of Ophthalmology and Radiology, Harvard Medical School



# Input from the Research Community



## Criteria

Potential for impact on urgent national security priorities

Strength of the supporting evidence base

Use or development of emerging data sources, methods, or other technical advances

Technical readiness
- how close to
application?

Together, SBS research and technological advances and applications can support stronger, richer, more nuanced, more accurate, and more efficient intelligence assessments.

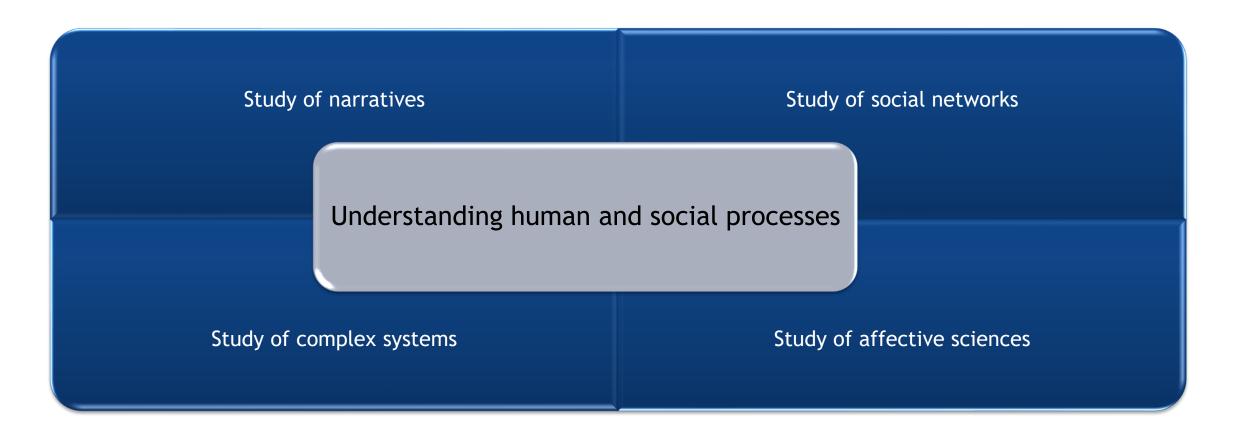
## Four Opportunities

Emerging ways to answer intelligence questions Enhancing security in cyberspace Optimal design of a human-machine ecosystem Preparing the analytic workforce for future challenges

# Emerging ways to answer intelligence questions



## Research Areas



# Enhancing security in cyberspace



## Social Cybersecurity

Uniting cybersecurity insights with research about fundamentally human phenomena to optimize readiness for evolving security threats, helping the IC to:

- Understand cyber-mediated developments
- Build infrastructure to protect and defend

## Research Opportunities

- Social Cyberforensics Who is conducting social cyber attacks?
- Information Maneuvers Identifying strategies used in social cyber attacks
- Information Diffusion Tracking attackers and impact across social media platforms
- Quantifying Effectiveness of Information Campaigns
- Identifying Those Most at Risk of Attack
- Most Effective Responses to Attacks

# Optimal design of human-machine ecosystems



## The vision

Collaborators & teammates



# Interdisciplinary work that brings together SBS researchers and experts in AI and computer science/engineering to consider

- Human capacities (e.g., attention limits, workload and interruptions)
- Human-machine interactions (e.g., decision support, trust, data visualizations)
- Human-technology teaming (e.g., task allocation, shared mental models, teams "on the fly")
- Human-systems integration (e.g., system effectiveness, training)

# Strengthening the analytic workforce



### Applying Research Foundations to the IC Context

- Identifying, recruiting, and selecting individuals likely to succeed as intelligence analysts
- Retaining effective employees
- Providing training and other means to develop workforce skills and abilities
- Obtaining optimal performance by supporting the analytic workforce

# Strengthening ties between the SBS community and IC



### Lessons

- Careful attention to transparency in funding relationships
- Balance norms and procedures of academia with need to protect security
- Pursue clarity and consensus regarding values and ethics
- Engage in ongoing dialogue concerning research ethics in new research domains/with new technology

### Related Themes in SBS Research

- Moving beyond silos—value of inter- and cross-disciplinary work
- Understanding human element is critical to success

SBS research offers a fundamental—indeed essential—contribution to the mission of the IC

## Recommendation

➤ The IC should make sustained collaboration with researchers in the SBSs a key priority as it develops research objectives for the coming decade. A multipronged effort to integrate the knowledge and perspectives of researchers from these fields into the planning and design of efforts to support intelligence analysis is needed. Effective interchange is likely to involve:

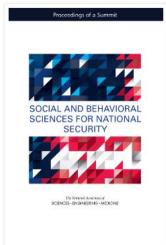
Identifying and building on successful collaborations

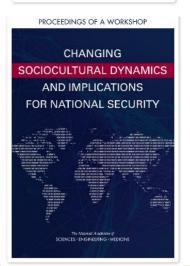
Strengthening bridges between SBS community and IC

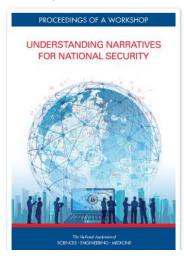
Providing opportunities for analytic staff to build SBS knowledge

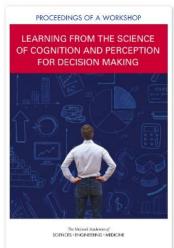
Drawing on principles of human-systems integration

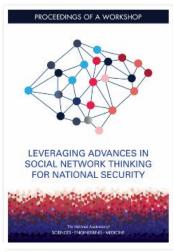
## Study Publications - www. nap.edu

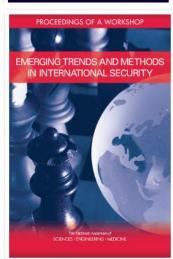


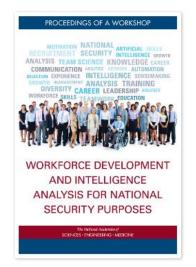


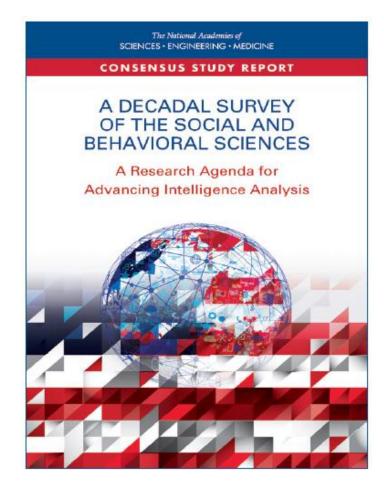












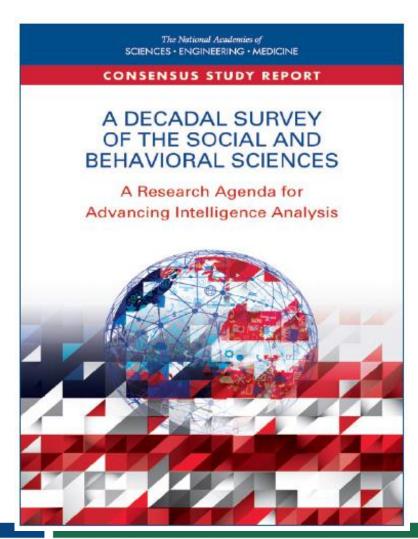
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## Thank You!

- > Report is Available!
  - https://www.nap.edu/catalog/25335
  - Visit our website for study information and report highlights

http://nas.edu/SBSDecadalSurvey

> Reach us <a href="mailto:SBSDecadalSurvey@nas.edu">SBSDecadalSurvey@nas.edu</a>



## Discussion



Let's hear from you!

If using computer microphone: raise your hand!

Step 1: select "participants"

Step 2: select "raise hand"

(may be in sidebar)

Step 3: after you're unmuted, ask your question!

If using telephone audio/microphone: put your question in the chat box!



### Homework



- Raise the Caps
- Reject Citizenship Question in 2020 Census
- Support SBS Funding
- More: <a href="www.cossa.org/advocacy/take-action">www.cossa.org/advocacy/take-action</a>
- ☐ Submit Examples of Behavioral and Social Science Accomplishments to NIH (and COSSA!)
  - More: https://obssr.ideascale.com
- ☐ Reach out to NASEM staff to share ideas for future engagement
  - Email: <u>SBSDecadalSurvey@nas.edu</u>





### **Next Month:**

- ☐ June's HEADLINES
- ☐ DEEP DIVE: TBD

### Miss last month's Headlines?

www.cossa.org/resources/headlines





### Find this useful?

- $\Box$  Tune in each month 2<sup>nd</sup> Thursday
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- ☐ Encourage other organizations and universities to **Join COSSA** (*email Wendy at wnaus@cossa.org*)
- ☐ Send us your ideas for DEEP DIVES (email Camille at <a href="mailto:chosman@cossa.org">chosman@cossa.org</a>)



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