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**Principles for Data-Driven Decision Making**  
**Symposium Agenda**

**September 14, 2017**

***Keck Center, Room 100, 500 5<sup>th</sup> St. NW, Washington DC***

**WEBCAST: [http://sites.nationalacademies.org/DEPS/BMSA/DEPS\\_180903](http://sites.nationalacademies.org/DEPS/BMSA/DEPS_180903)**

**MEETING GOALS:**

- Describe government, business, and DOD applications of data analytics to inform decision-making;
- Call attention to methodological and organizational challenges in using analyses based on complex data in a specific decision context;
- Provide a set of underlying principles that non-technical decision makers can recall when presented with new analyses.

**9:00 AM      Strengthening Data Science Methods for DOD Personnel & Readiness**

*Stephen Robinson, University Wisconsin Madison*

**9:05 AM      Introduction to the workshop and the promise and challenges of data driven decision making**

*Stephanie Shipp, Biocomplexity Institute of Virginia Tech.*

**9:25 AM      Opening Keynote**

*-David Yokum, The Lab @ DC*

**10:05 AM      Principle 1: Question the data and analysis pipeline. Ask about uncertainty in the data and analysis. Ask what assumptions were made and ask if the model can**

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*be validated? Are there other methods available and do they give similar results?*  
Moderated by Joe Langsam, University of Maryland.

Description of decision context and constraints—Policing Albuquerque  
-*Scott Darnell, Albuquerque Innovation Team*  
Description of case study—Analytics for policing  
-*David Higdon, Biocomplexity Institute of Virginia Tech*  
Panel discussion

**11:20 AM** **Break**

**11:35 AM** **Principle 2: Know your population and ask if the data match.** *Ask what the ideal data would be (or ideal experiment to get that data) and ask how and why your data is different.* Moderated by Stephanie Shipp

Description of the decision context—Military health care benefit design  
-*Christopher Meyer, Center for Naval Analyses*  
Description of case study—Analyses for accurate population modeling  
-*Sarah K. Burns, Institute for Defense Analyses*  
Panel discussion

**12:50 PM** **Lunch**

**1:35 PM** **Principle 3: Ask how the data and analysis drives a decision.** *Ask what the decision tradeoffs are.* Moderated by Bill Strickland, HumRRO

Description of decision context and constraints—Workforce management at IBM  
-*Chid Apté, IBM*  
Description of case study—Prescriptive Analytics for IBMs Workforce  
-*Mark Squillante, IBM*  
Panel discussion

**2:50 PM** **Break**

**3:05 PM** **Closing keynote presentation—The Federal Perspective**  
-*Robert Shea, Commission on Evidence-Based Policymaking*

**3:35 PM** **Closing keynote presentation—The Organizational Perspective**  
-*Fred Oswald, Rice University*

**4:05 PM** **Open Discussion.** Moderated by Joe Langsam

**5:05 PM** **Adjourn**