# The Social, Behavioral and Economic Perspective of Big Data Research

## Designed data

Data originated from designed sources, e.g.:  
- scientific instruments,  
- administrative data,  
- large-scale surveys,  
- brain research,  
- large-scale simulations, and etc.

## Organic data

Data produced without explicit data collection design, e.g.:  
- data generated by mobile apps,  
- ubiquitous sensing apps,  
- social interactional data from social networking sites, twitter feeds, click streams, and etc.
FY 2014:
- computer science
- info. science
- psychology
- geo sciences
- statistics

FY 2015:
- computer science
- info. science
- psychology
- geo sciences
- statistics
- economics
- business
- sociology
- political science

SBE + Big Data
We encourage and support communities to develop capabilities dedicated to the creation of new, large-scale, next-generation data resources and relevant analytic techniques to advance fundamental SBE research.

FY 15 SBE BIGDATA Award

✧ 1546259: Population Reproduction at Birth from Surveys and Registrations

✧ PI: Michael Rendall (UMD) & Mark Handcock (UCLA)

✧ Amount: $1,201,219

✧ To aggregate birth information from the decennial census, ACS, CPS, NLSY, PSID, and SIPP, then to produce large times-series life-course data about poverty and social mobility.

ACS: American Community Survey
CPS: Cross-sectional Current Population Survey
NLSY: National Longitudinal Survey
PSID: Panel Survey of Income Dynamics
SIPP: Survey of Income and Program Participation
1447634: Iterative Crowdsourced Hypothesis Generation

- PI: James Bagrow, University of Vermont
- To build a crowdsourcing web platform to use the knowledge of interested non-experts (Hunch) and the algorithmic power of computers (Crunch) to discover and test causal relationships.
  - Algorithms identify potential relationships and users are asked to validate them.
  - Users are able to propose their own hypotheses that can subsequently be validated, creating an accelerating feedback loop of scientific discovery.
FY 15 RIDIR Awards

1539228: Longitudinal Intergenerational Family Electronic Micro-Database (LIFE-M)
PI: Bailey, Martha (University of Michigan-Ann Arbor)
Amount: $2,129,972

1539129: Enabling Access to and Analysis of Shared Daylong Child and Family Audio Data
PI: Warlaumont, Anne (University of California – Merced)
Amount: $985,439

1539302: Modernizing Political Event Data for Big Data Social Science Research
PI: Brandt, Patrick T. (University of Texas at Dallas)
Amount: $1,497,358