

BigData at the Census Bureau: Discussion

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**Census Scientific Advisory Committee
U.S. Census Bureau
17 September 2015**

Overview

- **BigData Project at Census**
- **Expanding Horizons**
 - **Within Census Bureau**
 - **Statistics**
 - **Social Science**

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Census Bureau – **Mission**

- **Develop and provide high-quality data on the American people and economy (society? polity?)**

Census Bureau –

Purpose of Data

- Official statistics
- Public use
 - to advance scientific knowledge
 - for policymaking
 - to assist in public and private endeavors
- In a word: **Measure America**

Census Bureau -- **Strategy**

- **Classically**
 - censuses and surveys
- **Increasingly**
 - administrative data
 - **BigData**

Census Bureau -- Explore BigData

- **Fill data gaps in censuses and surveys**
- **New measures without new censuses and surveys**

Using BigData

- **Requires clear understanding of**
 - **representativeness**
 - **selection**

What Might Results Look Like?

- **Classical**
 - **point estimates**
 - **interval estimates**
- **Somewhat new**
 - **continued inequalities**
 - **statements of bounds**

Census Bureau

BigData Project

- **Good understanding of the challenges**
- **Excellent workplan**
 - **new center**
 - **partnerships outside Census Bureau, including govt agencies and universities**
 - **CSAC Working Group**

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To Measure America

Expand Horizons -- 1

- **Within the Census Bureau**
 - **Open doors to all subject matter**
 - **Be alert to new possibilities for enhancing existing data and creating new data**

Within-CB Illustration:

Foreign-Born

- **How can BigData enhance data base for studying**
 - **language use (e.g., in transactions)**
 - **remittances**
 - **travel, domestic and international**
 - **immigration process (e.g., does sponsor or imm pay sponsor forms)**
 - **parental birthplace**

To Measure America

Expand Horizons -- 2

- **Statistics**

- **Be alert to new possibilities for contributions to statistics**

- **new distributions**
 - **new mixed distributions**
 - **etc.**

To Measure America

Expand Horizons -- 3

- **Social Science**

- **Be alert to new possibilities for contributions to social science**

- **Test propositions without fielding new data collection**

- **exploratory and extra-theoretical propositions**

- **theoretical predictions**

Illustration:

Social Science Predictions

- **How can BigData enhance data base for testing predictions**
 - **Parental giftgiving (e.g., toys)**
 - **Inheritance and grief**
 - **Eating disorders and blindness**
 - **Theft from insiders or outsiders**
 - **Inequality and social cohesion**

Further Illustration: Inheritance and Grief

- Cervantes' insight AND prediction
- **Inheritance tempers grief**
 - The death of a child is mourned more than the death of a parent
 - The parent who dies first is mourned more
- Examine expenditures on funerals, tombstones, memorial gifts

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