Discussion: Census Total Quality

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Pandemic Environment

- Four countries with different political situations

- Four difficult pandemic experiences

- Four different approaches to measuring quality

- But commonalities:
    - Disruption
    - Movement of people
    - Changes in employment, education, health

Four Pandemic Response Plans for the Census

US: Evaluation and looking ahead-changing uses of Administrative Records but quality issues need to be addressed

England and Wales: Increased used of statistical methods to improve quality; high response rates; able to adjust using CCS

Italy: Register based but did not conduct 2020 surveys; more modeling was needed

Canada: Traditional census with more use of mitigation strategies

US: Administrative Records (AR)

- Quality measurement for AR just one measure of overall census quality

- AR person total larger than the 2020 Census – how will Census Bureau researchers determine whether these actual differences or errors in the ARs?

- What is the definition of "high quality" administrative records in the 2020 Census; e.g., what exactly is high probability? How did that change during census operations?

- How will the Post-Enumeration Survey be used to look at coverage of ARs?

- Looking ahead: how to resolve the dilemma of less accurate AR in areas with low self-response? When do ARs increase quality?

England and Wales:

- Important step: Conduct CCS and match to Census in time to adjust the Census – Are adjustments made public? Are they clustered geographically or demographically?

- Coverage estimation: Use of statistical models and administrative data for QA and bias adjustments – do politicians accept the statistical methods?

- Statistical Disclosure balances risk versus utility: How is the acceptable level of risk determined?

- Quality measure: developing an overall quality measure based on statistical methods rather than measuring field operations – may not matter with high self response rate.

Italy:

- New design more reliant on administrative records and prior surveys

- Collecting significant demographic information but 2020 reductions due to COVID, thus certain variables modeled – what were the quality threshholds for modeling?

- Do probabilities hold up under COVID disruptions? How did behaviors change from pre-COVID times that models are based on. What about post-pandemic models based on 2020-2021?

- Lessons learned from having a registry updated by surveys – robustness. Can this be used by other countries?

Canada

- Many similarities between the US and Canadian census-taking approaches

- Canada: To stop data collection, response rates must meet target AND additional quality indicators (flexible threshholds)

- Dwelling Classification Survey used to adjust census

- Evaluation timing?

Questions For Further Research

◈ Quality of Administrative Records and accuracy of the modeling

◈ How fast can quality/coverage metrics be collected and used? Incorporated in census data prior to release?

◈ Role of process statistics in assessing quality

◈ Improving quality for hard to count populations with poor AR coverage

◈ How will trust in government play into future censuses?

◈ Can methods sharing improve in now commonplace virtual environments (risk utility tradeoff on privacy protection, total error, deduplication, etc.)