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Distinguished Public Policy Lecture
Institute for Policy Research
Northwestern University

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Outline

• Overview of the 2010 Census Operations
• A review of total survey error
• Principles of the Federal statistical system
• Quality in official statistics
  – Relevance
  – Credibility
2010 Census Key Dates

• Jan 17 – advertising launch
• Feb 17-19 – advance letters mailed
• Mar 15-17 – questionnaire mailed
• Mar 18-19 – reminder postcard mailed
• April 1 – CENSUS DAY
• April 1-10 – replacement forms
• May 1-July 10 – non-response follow-up
• Dec 31 – population counts to President
• Apr 2011 – complete delivery of state counts
A Small Request

Name
Gender
Age
Ethnicity
Race
Other residence
Own/Rent
Telephone no.
2010 Census Language Program

**Census Forms (6)**
- English
- Chinese-Simplified
- Korean
- Russian
- Spanish
- Vietnamese

**Promotional Materials, Paid Media (TV, Radio, Print, OOH, and/or Web) (28)**
- Arabic
- Armenian
- Bengali
- Chinese-Mandarin
- Chinese-Cantonese
- English
- Farsi
- French
- German
- Greek
- Haitian Creole
- Hindi
- Hmong
- Italian
- Japanese
- Khmer
- Korean
- Laotian
- Polish
- Portuguese
- Russian
- Spanish
- Thai
- Tagalog
- Ukrainian
- Urdu
- Vietnamese
- Yiddish

**Language Assistance Guides (59)**
- Albanian
- Amharic
- Arabic
- Armenian
- Bengali
- Bulgarian
- Burmese
- Cebuano
- Chamorro
- Chinese-Simplified
- Chinese-Traditional
- Chuukese
- Croatian
- Czech
- Dari
- Dinka
- Dutch
- Farsi
- French
- German
- Greek
- Gujarati
- Haitian Creole
- Hebrew
- Hindi
- Hmong
- Hungarian
- Ilocano
- Italian
- Japanese
- Khmer
- Korean
- Laotian
- Lithuanian
- Malayalam
- Marshallese
- Navajo
- Nepali
- Polish
- Portuguese
- Punjabi
- Romanian
- Russian
- Samoan
- Serbian
- Somali
- Spanish
- Swahili
- Tagalog
- Tamil
- Telugu
- Thai
- Tigrinya
- Tongan
- Turkish
- Ukrainian
- Urdu
- Vietnamese
- Yiddish

**Partnership Staff Linguistic Capabilities (101)**
- Albanian
- Amharic
- American Sign Language
- Anishinaabemowin
- Arabic
- Aramaic
- Armenian
- Bahasa Melayu
- Bengali
- Bicol
- Bosnian
- Bube
- Burmese
- Caddo
- Cebuano
- Chaldean
- Chinese-Cantonese
- Chinese-Chaochowese
- Chinese-Fukenese
- Chinese-Mandarin
- Chinese-Shanghiaise
- Chinese-Simplified
- Chinese-Traditional
- Choctaw
- Couthatta/Koasati
- Creole
- Dakota
- Dutch
- English
- Fang
- Farsi
- Flemish
- French
- French Creole
- German
- Greek
- Haitian Creole
- Hawaiian
- Hebrew
- Hindi
- Hmong
- Hokkien
- Hungarian
- Igbo
- Indonesian
- Irish
- Gaelic
- Italian
- Japanese
- Keres
- Khmer
- Kickapoo
- Korean
- Lokata
- Laotian
- Lithuanian
- Lummi
- Maliseet
- Marshallse
- Mayan-Yucatec
- Micmac
- Mixteca
- Mohawk
- Muskogee
- Navajo
- Nez Perce
- Oneida
- Oryia
- Oromo
- Pawnee
- Polish
- Portuguese
- Portuguese-Brazilian
- Portuguese Creole
- Punjabi
- Purepecha
- Russian
- Sahaptin
- Salish
- Samoan
- Sinhalese
- Slovak
- Somali
- Spanish
- Swahili
- Tagalog
- Taiwanese
- Tamil
- Taosanese
- Teochew
- Thai
- Tigrinya
- Tongan
- Ukrainian
- Urdu
- Vietnamese
- Wikang Filopino
- Wolof
- Yiddish
- Yoruba

* Percent of all adults either in their native tongue, or in English for those who are bilingual
2010 Census Integrated Communications Campaign

Earned Media/PR
Partnership
Digital
Paid Advertising
Census in Schools

IT’S IN OUR HANDS
Paid Advertising

$168 Million Ad Buy
28 Languages

Winner of 15 national advertising awards
257,000 Partners
Use of Social Media

- facebook
  • Launched 1/10 – now up to approx 100,000 Fans

- twitter
  • Launched 1/10 – now over 6,000 followers

- YouTube
  • Over 350 videos posted
  • Karl Rove, “Chris” most popular with 50,000 views

- Director’s Blog
- Road Tour Blog
  • Director’s blog: 600,000 page views since launch in 10/09

- Census photo warehouse for Road Tour, Census in Schools and other pictures from the field
What did all this produce?
2010 Resident Population

308,745,538

9.7%
The 2010 Census

• Over $13 billion spent over 13 years
• 100’s of millions of paper questionnaires
• 600,000 interviewers knocking on 47 million household doors after a mail phase
• Billions of statistics will be produced
• Intensively, necessarily, broadly, a public ceremony
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  – Relevance
  – Credibility
Total Survey Error

Variance
- Coverage
- Sampling
- Nonresponse
- Measurement
  - Mode
    - Questionnaire
    - Interviewer
    - Respondent

Bias
- Coverage
- Sampling
- Nonresponse
- Measurement
  - Mode
    - Questionnaire
    - Interviewer
    - Respondent
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• Etymology:
  – *Status*: Latin, “state”
  – *Statistista*: Italian, “statesman” or “politician”
  – *Statistik*: German, “science of state”

• “Political Arithmetic”
  – 17th Century: Graunt and Petty
  – 18th Century: Achenwall, the originator of the term “statistik”
  – 19th Century: Royal Statistical Society and American Statistical Association
  – 20th Century: BLS and Census Bureau; Current Population Survey, Annual Housing Survey
Principles of a Federal Statistical System

• A federal statistical agency must be in a position to provide **objective** information that is **relevant** to issues of public policy.
• A federal statistical agency must have **credibility** with those who use its data and information.
• A federal statistical agency must have the **trust** of those whose information it obtains.
• A federal statistical agency must have a strong position of **independence** with the government.
These Principles Have Implications

• Separation of statistical indicator production from policy-making
  – Independent delivery of statistics directly to the public
  – Published schedules of releases

• A focus on the widest possible set of audiences

• A nonpartisan stance
## Contrasts between Official Statistics and Academic Social Statistics

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• Principles of the Federal statistical system

• Quality in official statistics
  – Relevance
  – Credibility
Quality in Official Statistics

Credibility

Relevance

Measurement
Accuracy

Estimator
Accuracy

Quality, “Fitness for use”
Quality in Official Statistics

- Credibility
- Relevance
- Measurement Accuracy
- Estimator Accuracy

Quality, “Fitness for use”
‘Relevance’

- Proximity between the concept we want to observe and the result that is obtained (INSEE)

- Brackstone (1999) “The relevance of statistical information reflects the degree to which it meets the real needs of clients. It is concerned with whether the available information sheds light on the issues of most importance to users.”
“One thing I’ll say for us, Meyer – we never stooped to popularizing science.”
“Information should not be collected primarily for publication. It should be collected primarily because government needs it for its own business.” (Rayner, 1981)

vs.

Government statistics as the primary tool permitting the citizenry to evaluate the government.

Questions re “Relevance” on the UN Questionnaire

- Do you have procedures in place to identify and profile your users across domains?
- Do you have formal processes to consult users about their statistical needs?
- Does your organisation have a (or several) national user Council(s) in which the main users are represented?
- Do you carry out customer/user satisfaction surveys or studies with an office-wide scope on a regular basis?

People’s Knowledge of Official Measures, US

UK Studies on Confidence in Official Statistics (Kelly, 2005)

• The public had more of an interest in statistics that were of direct relevance to their everyday lives.
  
  – These were statistics that were presented in such a way as to highlight the impact on them, or that reflected their personal circumstances (e.g., hospital waiting lists or local crime rates).
The EU Community:

Some people say that statistical information play an important role in business, public and political decision making. Personally, do you think that, in (OUR COUNTRY), political decisions are made on the basis of statistical information?

Source: Mira d’Ecole and Papacoutas, Trust, Statistics & Knowledge: Evidence from the EC Special Eurobarometer survey 2009
Are Official Statistics Too Indirectly Related to Daily Life to be Viewed as “Relevant”

• Official statistics as only one input into a policy decision
  – Weight given varies considerably

• If government policy is irrelevant to daily life then official statistics are doubly-so
Alternative Conceptual Approaches to Relevance

• Theory-driven, with “relevant” theory
  – Systems of national accounts

• Data-driven, with “relevant” target construct
  – Problem-driven
Components of Relevance

- Timeliness
- Effectiveness
- Consistency
- Completeness
A Case Study in Relevance: UK Price Change Index

• “official price indices . . . are of doubtful relevance for policy purposes”

• Annual changes in weights for bundle of goods in CPI
  – When consumers switch to cheaper but less satisfactory good, CPI rises less
  – Misleads that inflation is lower
  – An unwise mix of an inflation measure and a cost-of-living index

• Government policy-makers misled about causes of CPI changes

A Case Study in Relevance: Romanian Unemployment Rate

• “An economy with a low unemployment rate has a high capacity of generating working places for its labor force. . .”

• Reduction in rate sometimes accompanied by reduction in employed persons
  – Labor force membership decline associated with failure to register with national agency for employment
  – Some have left Romania for external work

• The unemployment rate should not reflect behavior of those who’ve left the country but should those who failed to register

Why Relevance May be More Difficult Now in the U.S.

1. Heterogeneity
2. Rate of change
3. Complexity of interactions
4. Affluence (how welfare includes more than wealth)

Implications

• Adjust to heterogeneity
  – Alternative modes of data collection
  – Alternative constructs of varying centrality
  – Alternative disaggregations and forms of dissemination

• Adjust to increase rate of change
  – More longitudinal measurement
  – Increased frequency of estimates

• Adjust to complexity of interactions
  – More multi-level data sets
Quality in Official Statistics

Credibility

Relevance

Measurement Accuracy

Estimator Accuracy

Quality, “Fitness for use”
A View on Credibility

A lot of indirect influences

– Statistical qualities of data and estimates (as a function of the transparency of the statistical production process)
– Trust in the statistical agency (as a function of the delivery message of the medium)
The Base Model

- Trust in Government
- Absence of Political Orientation
- Scientific Basis of Actions
- Past Perceived Accuracy
- Past Agreement with Benchmarks
- Media Treatment of Estimates
- Trust in Statistical Agency
- Estimate’s Measured Statistical Quality
- Estimate’s Agreement with Benchmark

Credibility
My Innumerate Side

- Trust in Government
- Absence of Political Orientation
- Scientific Basis of Actions
- Past Perceived Accuracy
- Past Agreement with Benchmarks
- Media Treatment of Estimates
- Trust in Statistical Agency
- Estimate’s Measured Statistical Quality
- Estimate’s Agreement with Benchmark

Credibility
The Transparency Strategy

- Past Measured Statistical Quality
- Past Agreement with Benchmarks
- Trust in Government
  - Absence of Political Orientation
  - Scientific Basis of Actions
  - Past Perceived Accuracy
- Media Treatment of Estimates
- Trust in Statistical Agency
  - Estimate’s Measured Statistical Quality
  - Estimate’s Agreement with Benchmark
- Credibility
The Branding Strategy

- Trust in Government
- Absence of Political Orientation
- Scientific Basis of Actions
- Past Perceived Accuracy
- Past Agreement with Benchmarks
- Media Treatment of Estimates
- Trust in Statistical Agency
- Estimate’s Measured Statistical Quality
- Estimate’s Agreement with Benchmark
- Credibility
Policy Strategy Thoughts

• Relevance as a gateway to credibility
• Transparency of professional behavior the *sine qua non*, despite its risks
• Branding effects limited to direct delivery of information, but useful
• More active alliances with media may help
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