Assessing the Health of the Federal Statistical Agencies

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Some Challenges Made Visible

Measuring “Health”—Indicator Definition Challenges

- *We want to measure the “health” of federal statistical agencies*: broadly, I suggest it is their ability to provide *relevant, timely, frequent, granular, accurate*, *objective*, and *accessible* data for the public and policymakers
- *Desirable properties of indicators:* track a construct related to agency health; not incentivize “teaching to the test;” be measurable with available or feasible-to-collect data; be consistently measured across time and agencies; be intuitive to the public
- *Six (potential) areas for defining indicators*: autonomy, host agency support, resources, workforce, innovation, and data use and usability—first five areas enable the sixth

Measuring “Health”—Data Collection Challenges

- Fewer data are publicly available and readily accessible than we thought
- Developed a survey of the principal statistical agencies, but framing good survey questions is hard (!), and there is unit (agency) and item nonresponse
- Agency websites differ greatly, so not easy to find comparable information (e.g., end of reference period for surveys for use in developing a timeliness indicator)
- We need a survey of data users, which we are endeavoring to scope and obtain funding to carry out

Example #1—Innovation

- Innovations by statistical agencies can and need to occur in concepts and topics, data collection, data processing and estimation, data dissemination, and data evaluation
- We asked agencies about new products, new data sources, pilot projects, recent innovations, planned innovations (if $ permit), et al.
- Agencies gave us many interesting and important examples, but we are not sure how to turn their responses into indicators
- Also, when is an “innovation” innovative enough?

Example #1—Innovation (cont'd)

AGENCY/ TOTAL	NEW PRODUCTS	NEW DATA SOURCES	PILOT PROJECTS	RECENT INNOVATIONS	PLANNED INNOVATIONS
BEA	23	4	5	4	2
BJS	N.A.	N.A.	N.A.	N.A.	N.A.
BLS	36	4	1	9	1
BTS	N.A.	N.A.	N.A.	N.A.	N.A.
Census	17+	N.A.	2+	3	N.A.
NASS	3	3	0	3	3
NCHS	19	0	3	2	0
NCES	3	2	2	3	4
NCSES	0	0	5	5	1

NOTES: Responses summed over 5 years (new products and sources), 3 years (recent), or current (pilot and planned);
+ = agency gave examples and said there were many more; N.A. = Not available (BTS did not answer this section; BJS responded but not in a usable format).

Example #1—Innovation (cont'd)

Type	Historical	Recent (past 5 years per agency survey responses)
Concepts/Topics	^NIPAs ^SPM	^Consumer unit consumption (different from expenditures) (BLS) ^Global value chains (BEA, NCSES)
Data Collection	^Probability sampling ^CASM ^CAPI	^Publicly available data sets from theme parks for experimental price calculations (BLS) ^Core Logic Commercial Land Parcel data (NASS) ^National Hospital Care Survey data linked to 2016 and 2017 National Death Index (NCHS)
Data Processing and Estimation	^Hot deck imputation ^X-11,-12,-13-ARIMA (times series seasonal adjustment)	^Household distribution of disposable personal income (revival of series discontinued in 1970s) (BEA) ^Official GDP for Puerto Rico (BEA) ^Index of Economic Activity (experimental; monthly; updated daily; weighted average of 15 business indicators) (Census Bureau) ^Weekly Business Formation Statistics for states (Census Bureau) ^Adult literacy estimates for states and counties by age and gender using survey data with small-area estimation techniques (NCES)
Data Dissemination	^PUMS ^FSRDCs	^Spanish-language Puerto Rico website (BEA) ^Crop Condition and Soil Moisture Analytics Tool (Crop-CASMA) (Web-based mapping tool with NASA imaging data) (NASS)
Data Evaluation	^Dual-system estimation for coverage error	

Example #2—Data Use and Usability

- Asked agencies about downloads/page views; citations in journals, news media, congressional documents; user conferences/sessions with users at other conferences; changes made in response to user feedback
- Collected data on timeliness (months/years from end of reference period for data collection to first publication)
- Here is where we clearly need a comprehensive user survey

Example #2—Data Use and Usability (cont'd)

AGENCY/TOTAL	USER CONFERENCES	SESSIONS WITH USERS	PROGRAM CHANGES IN RESPONSE TO USER SESSIONS
BEA	60+ (conferences and sessions)		2+ (outdoor recreation economy; county GDP—users accepted suppression in return for more industry detail)
BJS	16	24	N.A.
BLS	10	95+	5 (timing of news releases; task list categories for Occupational Requirements Survey)
BTS	N.A.	N.A.	N.A.
Census	2+	110	2+ (improvements to data.census.gov)
NASS	6	11	N.A.
NCES	N.A.	N.A.	N.A.
NCHS	N.A.	N.A.	N.A.
NCSES	27	10	7 (added questions on CHIPS funding for R&D to Survey of Federal Funds for R&D)

NOTES: Responses summed over 3 years (conferences and sessions); + = agency gave examples and said there were many more; N.A. = Not available (item nonresponse).

Example #2—Data Use and Usability (cont'd)

Downloads	2020	2021	2022
BEA	6.3	5.2	5.6
BJS	1.1	0.4	0.3
BLS	15.1	11.6	23.1
Census	7.6	6.6	6.7
NASS	172.2	219.3	209.8
NCHS	4.0	2.1	1.7
NCSES	0.1	0.2	0.3

Page Views	2020	2021	2022
BEA	17.6	14.2	22.7
BJS	9.3	4.1	5.2
BLS	138.3	147.1	170.5
Census	456.8	209.3	167.3
NASS	N.A.	N.A.	N.A.
NCHS	105.9	56.5	41.4
NCSES	2.2	2.4	2.4

NOTE: Numbers rounded to millions