

Opportunities, Challenges and Practical Approaches for Training and Human Resource Management in National Statistical Offices

John L. Eltinge
U.S. Bureau of Labor Statistics

UN-ECE Workshop on Human Resources
Management and Training

October 15, 2014



Acknowledgements and Disclaimer

The author thanks David Banks, Paul Biemer, Moon Jung Cho, Larry Cox, Don Dillman, Bob Fay, Brian Harris-Kojetin, Rachel Harter, Mike Hidiroglou, Anders Holmberg, Bill Iwig, Alan Karr, Sallie Keller, Bill Mockovak, Sally Morton, Barbara O'Hare, Polly Phipps and Clyde Tucker for many helpful discussions of the topics considered in this paper.

The views expressed here are those of the author and do not necessarily reflect the policies of the U.S. Bureau of Labor Statistics.

Overview

- I. Introduction: Opportunities and Challenges
- II. Practical Context for National Statistical Offices
- III. Four Dimensions of Design for Survey Processes
- IV. Matrix Management
- V. Training Needs

I. Introduction: Opportunities and Challenges for National Statistical Offices

A. Opportunities

1. Increasingly complex stakeholder needs for high-quality statistical information
2. Alternative data sources that may provide additional relevant information
 - a. “Organic data” or “non-designed data” (Groves, 2011) or “big data”
 - b. Integration of multiple data sources (Citro, 2013, 2014)

I. Introduction (Continued)

B. Challenges: Anchor Our Response in Careful Balance of Data Quality, Cost and Risk

C. Suggestions:

1. Responses to these opportunities and challenges will require increasingly sophisticated forms of Human Resource Management and Training (HRMT)
2. Essential to recruitment & retention of strongest personnel
3. Crucial: Cumulative impact of targeted investments in HRMT (intangible capital)

II. Practical Context for National Statistical Offices

- A. Mandate: Provide high-quality statistical information for a wide range of stakeholders

- B. Body of material on general principles for good practice by statistical offices
 - 1. Examples: Fellegi (1996), Holt (2008), United Nations Statistical Commission (1994, 2013), National Research Council (2013), many national statistical offices

 - 2. General themes: Quality, integrity, transparency, cost-effective management, risk management

II. Practical Context (Continued)

C. Increased Emphasis on Standardization of Statistical Practice and Production Systems

Examples: GSBPM (Vale, 2009), GSIM, standardized architecture (Camstra and Renssen, 2011; JOS Special Issue, 2013; references cited therein)

D. Budgetary Challenges:

1. Decreasing aggregate resources; allocation constraints
2. Crucial factor: Most important projects are capital intensive (human capital; other intangible capital)

III. Four Components of Design

A. Market Definition

1. Which segments of the “information market” to enter/continue/adjust/exit?
2. Meeting specific perceived “customer needs”
3. Realistic alignment of cost/quality/risk profile with current and sustainable revenue streams
4. Critical role of rigorous market standards for quality, integrity and transparency

III. Four Components of Design (Continued)

B. Methodology: Defined Broadly

C. Systems: All aspects of cost/quality/risk

D. Management

1. All aspects of organization, as well as individual and institutional incentives
2. Critically important: Alignment of authority, accountability and skills (longstanding issue in the role of science and technology in representative governments)
3. Intellectual property (data, methodology)

IV. Matrix Management

- A. Broad term applicable to management of essentially all large technical organizations, including large statistical offices
- B. Goals: Efficient integration of diverse set of highly specialized skills into specific projects when needed
- C. Spectrum of options: Functional, Balanced, Project
 - Extensive literature

IV. Matrix Management (Continued)

D. Commonly cited strengths:

Economies of scale, possible flexibility

E. Important challenges (e.g., Sy & D'Annunzio, 2005):

“Misaligned goals”

“Unclear roles and responsibilities”

“Ambiguous authority”

“Lack of matrix guardian” (overall governance)

“Silo-focused employees”

V. Training Needs

A. Technical Training

1. Methodology (defined broadly):

Fundamental concepts and tools for variability sources

Evaluation of data quality and coverage

Adjustments for “patchwork” coverage of populations

Extensions of “Total Survey Error” models to non-survey sources (Davern, 2007; Zhang, 2012; others)

Hierarchical modeling, Imputation

2. Information technology:

Web-scraping, database management, record linkage

3. Substantive areas (economics, public health, demography)

V. Training Needs (Continued)

- B. Training in Formal Management, Broader Leadership
 - 1. Communication, active listening, negotiation, especially:
 - a. Understand and articulate the relevance of, and value added by, methodological concepts and tools
 - b. Link (1.a) with need to balance multiple dimensions of quality, cost and risk
 - 2. Skills to address limitations of “matrix management”
 - 3. Foster highly collaborative institutional culture
 - Careful attention to group, individual incentives

VI. Conclusions

- A. Era of Remarkable Opportunities and Challenges
 - Complex stakeholder needs, diverse information sources
 - Anchor responses in careful balance of quality, cost, risk

- B. Implications for Human Resource Management & Training:
 1. Careful attention to four dimensions of design:
Market definition, methodology, systems, management

 2. Account for strengths & limitations of matrix management

 3. Crucial: Serious and sustained investments in technical and managerial training

Contact Information

John L. Eltinge
Associate Commissioner
Office of Survey Methods Research

www.bls.gov/ore

202-691-7404

eltinge.john@bls.gov

