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Topic (iii): Resource management in statistical offices and the role of the IT departments

**ROLE OF THE CHIEF INFORMATION OFFICER IN MANAGING IT RESOURCES
IN A LARGE STATISTICAL ORGANIZATION**

Submitted by U.S. Bureau of the Census ¹

CONTRIBUTED PAPER

SUMMARY

1. The role and influence of the Information Technology organization and its CIO in resource management are clearly the product of the organizational structure pursued by that statistical enterprise. Role, influence, and ability to lead can vary greatly in centralized and decentralized environments. Each environment requires a unique management approach.

2. Certain enterprise-wide IT resources such as core infrastructure and telecommunications, including networking, demand strong and central control by the CIO. So too, do certain IT processes such as data management, metadata, and research and development. However, the logical, organizational path is hardly clear for many other IT resources and processes.

¹ Prepared by Nancy Potok and Richard W. Swartz.

3. The U.S. Bureau of the Census has moved from a pure centralized IT environment to an environment of distributed resource management and processing over the last 15 years. This transition, partly planned and partly evolutionary, has maximized IT resource value to statistical programs. It has also challenged and transformed IT management.

4. Clearly, the role of the CIO in managing IT resources and leading an efficient IT organization had to change with the new transition. Loss of centralized control in certain resource areas requires new management approaches and philosophies to lead effectively and successfully.

5. There are many distinct advantages to distributed computing in a large statistical organization such as broadening access to human resources, expanding research, creativity, and intellectual pursuit, expanding financial resource flexibility, and improving scheduling and product delivery.

6. Such transitions, however, are not without institutional risk and difficulty since they bring about a cultural change of institutional attitude. Risks can include difficulty leading and containing a sprawling IT environment with loss of direct centralized control, difficulty for the institution to speak with "one voice" on IT matters, increased coordination e.g. security, audit resolution, and a sizably increased need for software and hardware standardization.

7. Regardless of the organizational structure pursued, today's CIO is challenged to effectively manage IT resources in a large statistical organization in many ways. Certain of these challenges are common to many large institutions with a sizable IT presence and others are almost unique to a large statistical organization. Managing large amounts of data in a consistent fashion and safeguarding confidential data are two examples.

8. The role and management approach of the CIO in a distributed IT environment requires a new set of skills and attentions to achieve efficiency -- interpersonal skills, team building, and corporate orientation to name a few. These, well beyond the traditional technical excellence qualification associated with the position.