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**COST-EFFECTIVE IMPLEMENTATION OF SYNTHETIC TABULATION
(a.k.a. Controlled Tabular Adjustment)
In Legacy and State of the Art Statistical Data Publication Systems**

Contributed paper

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¹ Prepared by Ramesh A. Dandekar (ramesh.dandekar@eia.doe.gov).

**Cost Effective Implementation of Synthetic Tabulation
(a.k.a. Controlled Tabular Adjustment)
In Legacy and State of the Art Statistical Data Publication Systems**

Ramesh A. Dandekar
(Ramesh.Dandekar@eia.doe.gov)
Statistics and Methods Group, EI-70
U. S. Department of Energy
Washington DC 20585-0670

ABSTRACT

Recently Dandekar/Cox (2002) have proposed using controlled tabular adjustments (CTA) to prevent statistical disclosure of sensitive information in tabular data systems. Irrespective of the relative ease with which CTA produces synthetic tables, the cumulative conversion cost associated with a large number of legacy data systems creates a monumental financial burden for the National Statistical Offices (NSO). To minimize the cumulative financial impact on NSO, we further simplify the basic CTA implementation procedure. We also provide rationale for simplification, followed by a step-by-step implementation of our proposed procedure. Illustrative examples using complex tabular test cases are used to demonstrate the effectiveness of the modified procedure.

INTRODUCTION

As an alternative to the complementary cell suppression method, Dandekar/Cox (2002) proposes using controlled tabular cell adjustments to tables containing sensitive cells. The major thrust of the CTA implementation procedure is based on the fact that “relatively minor” changes to “statistical” table cell values do not degrade the quality of the statistical information. The quality of the statistical information is typically assessed in terms of percent error (or percent accuracy) of published values. So long as the percent error is statistically insignificant, usefulness of altered cell value remains undiminished.

Currently many NSO use the complementary cell suppression method to protect tabular data from statistical disclosure. For these NSO, converting from the complementary cell suppression to the Dandekar/Cox (2002) CTA method could be an undertaking of considerable cost.

We, therefore, propose a very simplistic modification to Dandekar/Cox (2002) CTA method. The modified procedure could be implemented with minimal changes to existing software code used by NSO to generate tabular data.