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**ADMINISTRATION AND POLICY OF STATISTICAL DATA CONFIDENTIALITY
IN ISRAEL**

Submitted by the Central Bureau of Statistics of Israel¹

Contributed paper

Summary

1. In Israel, the confidentiality of the individual data collected for statistical purposes has been protected since 1947 under the Statistics Ordinance, which has accompanied the Central Bureau of Statistics (ICBS) since its inception. On the subject of confidentiality, the Ordinance (last amended in August 1978) states:

“No information collected for the purposes of this Ordinance and derived from an individual return or the answer to a question, or from records or documents as referred to in section 15, shall be so published as to enable the identification of the person to whom it refers.”

And:

“No person other than an employee [of the ICBS] shall see any individual return made for the purposes of this Ordinance, or any part of such a return, except for the purposes of a prosecution under the Ordinance.”

2. Until the 1970s, protecting the confidentiality of individual data was not a problem, both because of the limited technological means available to researchers and because anonymous datasets (microdata files) were seldom released to researchers who lacked the technological means to use them.

3. In the 1970s, and more so in the 1980s, the ICBS began releasing anonymous microdata files, due to an increased demand, especially from the scientific research community. During this time, there was little difficulty in supervising the release of such microdata files, as all of the ICBS computerized files were stored in one central mainframe computer. The Government Statistician was the only person who could authorize the release of such files. The anonymous microdata files were released without

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variables that would enable direct identification of an individual. In addition, in cases where variables might enable an indirect identification, the categories would be grouped to prevent this (for example: creating one age group for everyone above a certain very high age).

4. In the ICBS today, as a result of the ongoing development of information technology and the use of a distributed computer network, most working files, including identified and anonymous datasets, are stored on the workers' individual personal computers. This has given rise to the need to address the confidentiality issues from two standpoints: that of computer security per se, and that of establishing a clear and concise policy and operational mechanism for the release of microdata to the public to ensure confidentiality.

5. Computer security has been obtained by using a combination program/physical device to prevent unauthorized copying to floppy disks of any information on an office personal computer. On the policy and operational level, the ICBS established a special Statistical Confidentiality Committee, headed by the ICBS Chief Scientist. Other members of the Committee include the ICBS Legal Advisor, the Head of the ICBS computer division, and the Assistant to the Government Statistician. The Committee began by creating policy guidelines for the release of microdata files in a manner that would protect statistical confidentiality. After these guidelines were approved by the Directorate of the ICBS, the Committee began their implementation on a day to day basis, and continues to do so.

6. The underlying principle of the ICBS policy is that statistical information is gathered and produced in order that others make use of it. In fact, the "publication" of information is one of the duties of the ICBS under the Statistics Ordinance, as long as it does not involve a breach of statistical confidentiality. The Committee established a working definition that statistical confidentiality means ensuring that the possibility of identifying any individual is highly improbable, though not impossible. The alternative, requiring that identification must be impossible, was found to be unrealistic in this age of computers, and if implemented, would prevent the release of any microdata files to the public.

7. The Committee established two methods of releasing microdata files to researchers in a manner that would ensure that the possibility of identification would be improbable:

- a) Public Use Files (PUF)- these microdata files contain anonymous individual data that the Committee considers to meet the above standard due to the degree of detail of the variables and the structure of the file.
- b) Microdata Under Contract (MUC)- these microdata files contain anonymous individual data that the Committee considers to meet the above standard due to the degree of detail of the variables, the structure of the file, the limitation of use of the file to academic researchers in recognized institutions, and the contractual limitations governing the use of the file by these researchers.

8. It should be mentioned in passing that the ICBS also enables selected researchers of recognized academic institutions to carry out research on anonymous (but identifiable) microdata using the ICBS Research Room, but only on the condition that they become special sworn employees carrying out the research under the conditions of the Statistics Ordinance, thus being subject to the criminal sanctions under the Ordinance if they breach statistical confidentiality.

9. As for the release of microdata files to researchers, either as PUF or MUC, every such file must first obtain the approval of the Committee for its initial release. At the operational level, copying the file from a personal computer to a floppy disk for delivery to the researcher requires the approval of the ICBS Legal Advisor. This approval will only be given if the Committee has already given its prior approval to the release of the data. In this way, effective supervision is imposed on the release of microdata to the public, ensuring the implementation in practice of the ICBS confidentiality policy.

10. The next project on the Committee's agenda is the use of advanced computerized tools to assess the probability of identifying individual information in a microdata file. Today the assessment is primarily done using professional judgment, with meager assistance from simple computerized analysis. Our hope is to adopt or develop a sophisticated programme that will assist us in judging the potential for identifying individual data in the microdata sets made available for research.