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ACTIVITIES IN THE FIELD OF DEMOGRAPHIC STATISTICS, 1956-1957

(Memorandum by the Secretary-General)

1. Activities in the field of demographic statistics^{1/} during the interval since the ninth session of the Commission have centred on three principal aspects. These are:

- A. the assembling and publication of more comprehensive demographic series;
- B. the evaluation of quality; and
- C. the promotion of development and improvement.

A summary of these activities is set forth below.

A. Assembling and publication

I. Assembling of data

2. The task of assembling, filing, and indexing demographic statistics has increased in volume and complexity during the period under review. A total of seventy-four separate series on population and vital statistics are now maintained for every area of the world.

3. Between 1945 and 1955, 162 countries took 237 censuses of population. In 1956 and 1957, thirty-eight countries and territories carried out censuses, making a total of 275 between 1945 and 1957. Most of these enumerations have already produced extensive tabulations, many of which were consistent with the

^{1/} Except information on the 1960 World Population Census Programme, which will be found in documents E/CN.3/236, E/CN.3/236/Add.1 - ST/STAT/P/L.1/Rev.2, E/CN.3/237, and E/CN.3/237/Add.1 - ST/STAT/P/L.23/Rev.1.

recommendations of the Statistical Commission and the Economic and Social Council.^{2/}

4. In vital statistics, the number of countries able to provide annual crude birth and death statistics, for example, has increased since 1955 from 169 to 185. Almost all of these make tabulations also according to the characteristics of the newborn and the decedent.

5. Almost all countries are able to estimate the numbers of inhabitants within their borders, the "estimate" ranging from a pure guess to a calculation based on census returns and the balance of births, deaths, and migration.

6. In 1956, the vital statistics questionnaire and that on cause of death were revised for the first time to bring the tables into accord with the provisions of the Principles for a Vital Statistics System^{3/} and to add five new tables, four of which were on marriage and divorce. In the course of this revision, the descriptive material - formerly part of the questionnaire proper - was compressed into a six-page pamphlet entitled Description of Vital Statistics Series. The separation of this type of data from the statistics enables it to be sent out to countries on an ad hoc basis as required, rather than routinely each year.

7. In 1957, the Questionnaire on Population Estimates was revised, primarily in order to incorporate into it a request for city population and to separate and expand the descriptive information on methods of estimating population. The revised questionnaire will be distributed for the first time in 1958.

II. Dissemination of statistics

(a) Unpublished data

8. The data cards and the Demographic Yearbook questionnaire files serve as a reference centre for international demographic statistics. During 1957, an average of thirty telephone requests for information were answered per month. Numerous written requests were filled, and a large number of individuals abstracted data from the files.

^{2/} E/1313, Annex 2.

^{3/} United Nations. Statistical Office. Principles for a Vital Statistics System; Recommendations for the Improvement and Standardization of Vital Statistics. Document ST/STAT/SER.M/19, 26 August 1953, 28 p. (Sales No. 1953.XVII.8)

9. In addition, special tables were prepared for public information purposes, for the 1957 World Economic Survey, and for the World Scope Encyclopedia. Tables of population and vital statistics were received and corrected for the Pan American Sanitary Bureau and the Food and Agriculture Organization, as well as for the Economic Commission for Asia and the Far East, with a view to maintaining consistency in corresponding data published by the various agencies. With the same purpose, as well as to eliminate duplication of requests to Governments, photostat copies of 1,441 separate tables from current Demographic Yearbook questionnaires were distributed in 1957 to the World Health Organization; the Food and Agriculture Organization; the United Nations Educational, Scientific and Cultural Organization; the International Labour Organisation; and the Pan American Sanitary Bureau. All of these activities further the aim of establishing and maintaining in the United Nations Secretariat a nucleus of basic demographic statistics.

(b) Demographic Yearbook

10. During 1956 and 1957, the Secretariat completed the publication of results available from population censuses carried out between 1945 and 1955. Two volumes of the Demographic Yearbook were devoted to this purpose, the "Special Topic" in both 1955 and 1956 being "population censuses". A total of 1,546 pages were required for this presentation - a coverage which will not be repeated until the 1960 censuses become available.

11. The 1957 Demographic Yearbook is the second "mortality" volume. It contains 650 pages of demographic statistics and text, 433 of which are devoted to mortality distributions. This second "mortality" volume provides continuity with the first, published in 1951, and together they make available historical series of mortality statistics back to 1930 for total deaths and death rates and to 1936 for most mortality characteristics. The rotation plan here exemplified is one method of meeting the need for historical series, expressed by the Population Commission at its ninth session (E/2957, para. 77). The programme of subject rotation, adopted with the 1949-50 Demographic Yearbook and maintained to date, has resulted in two general volumes, two volumes featuring mortality, two featuring natality, and three featuring population (of

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which two were for census results),^{4/} It is planned to make marriage and divorce statistics the feature subject in 1958 in view of the increased emphasis on this field in connexion with population forecasting and social statistics.

(c) Statistical Yearbook

12. Eight tables on demography were published in both the 1956 and 1957 Statistical Yearbooks. Two of these tables are re-printed from the Demographic Yearbook; the remaining six are summarized from the corresponding but more detailed Demographic Yearbook tables though limited to those birth rates, death rates and infant mortality rates which are officially reported as "complete" in terms of registration. Thus, data of lesser quality are excluded from Statistical Yearbook tables but continue to appear in the Demographic Yearbook, where they can be qualified in the text.

(d) Population and Vital Statistics Reports

13. The Population and Vital Statistics Reports continue to be issued quarterly on 1 January, 1 April, 1 July, and 1 October. This publication has not changed in scope during 1956 and 1957, since it was already world-wide in coverage, but it can be seen that many areas now show a census figure where none was previously available and more areas produce crude birth and death rates - either registered or estimated.

(e) Monthly Bulletin of Statistics

14. Expansion of the geographic coverage of the population estimates table and of those showing crude births, death, and marriage rates in the Monthly Bulletin of Statistics is subject to space limitations. Nevertheless, between the January 1956 and January 1958 issues, population estimates series have increased from 100 to 112, birth and death rates from fifty to fifty-eight, marriage rates from forty-three to forty-eight. The infant mortality rates, which appear twice a year rather than monthly, are available in the October 1957 issue for seventy-eight countries - an increase of six series over the October 1956 issue.

^{4/} The subjects featured in the nine issues are as follows:

1948	General
1949-50	Natality
1951	Mortality
1952	Population
1953	General
1954	Natality
1955	Population censuses - general characteristics
1956	Population censuses - ethnic and economic characteristics
1957	Mortality

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B. Evaluation of quality of data

15. In accordance with the suggestion of the Commission at its ninth session,^{5/} the Secretariat has published the first systematic analysis of the availability and quality of population estimates and birth and death statistics. Population estimates published in the Yearbook were evaluated according to the type of base used and the method of time adjustments. The quality of birth and death statistics was evaluated in terms of geographic and ethnic coverage, completeness of registration, and the promptness with which statistics become available. The findings of the survey, which related to statistics in the Statistical Office as of 15 June 1956, were published in Chapter I of the 1956 Demographic Yearbook.

16. This specific analysis was the outcome of a continuous critical examination of demographic statistics which has been carried out routinely as part of the regular programme. Through consultation with national statistical services, information on methods and limitations are obtained and a detailed exposition of these is given in the "Technical Notes" to each table in the Yearbook. Other important qualifications are given in the footnotes to the tables. Beginning with the 1949-50 Demographic Yearbook, the gross population estimates were evaluated and classified as to quality by means of a code; with the 1951 issue, vital statistics were classified as "complete" or "incomplete". In so far as possible, these "quality" codes were supplemented with national data on the extent of under-enumeration at the census and under-registration of births and deaths. Beginning 1952, age-reporting errors in census returns were analysed and the censuses were classified into five categories, indicating degrees of reliability for this attribute. This age-reporting analysis was first applied to population census data in five-year age groups;^{6/} in the 1955 Demographic Yearbook, it was carried still further when population returns by single years of age, published for the first time in that issue, were analysed by Whipple's Index.^{7/} This basic analysis appears in each issue of the Demographic Yearbook as a guide to the accuracy of age reporting in censuses and subsequent population estimates.

^{5/} E/2876, para. 115.

^{6/} For description of method, see "Accuracy Tests for Census Age Distributions Tabulated in Five-year and Ten-year Groups", United Nations Population Bulletin No. 2, document ST/SCA/SER.N/2, October 1952, New York, p. 59-79.

^{7/} United States. Bureau of the Census. Thirteenth Census... Vol. I, p. 291-292.

17. Since vital statistics are in fact "registration statistics", they reflect only the number of births, deaths or marriages which get registered. When registration is known to be incomplete, the resulting vital rates do not reflect the true levels of natality or mortality. The amount by which they fail to reflect the true levels is, of course, conjectural unless some measure has been made. One such index is often derived by the sample survey technique whereby the occurrence of births and deaths during some prescribed period is recorded by enumeration. Such data are subject to many types of error, but under certain conditions, they can produce vital rates which are useful as indices of mortality and natality. Official rates of this type have been included in the trend tables of the 1957 Demographic Yearbook, where they serve to indicate somewhat more reliably the possible range of the crude rates in areas where registration is faulty. A partial survey of the application of this method in securing vital statistics indices may be found in Sampling Methods and Population Censuses (ST/STAT/P/L.14/Rev.1).

18. The Secretariat has issued a manual entitled Methods of Appraisal of Quality of Basic Data for Population Estimates (ST/SOA/SER.A/23). This manual presents a detailed exposition of methods of assessing the accuracy and consistency of census totals, vital statistics, migration statistics, and population data classified by sex and age groups. Illustrative applications accompany the descriptions.

C. Promotion of development and improvement

19. The formulation of international standards for concepts, definitions, and classifications in the field of vital statistics was accomplished in 1953, when the Statistical Commission and the Economic and Social Council approved the Principles for a Vital Statistics System. From that time, therefore, promotion of development and improvement in the field through provision of assistance to Governments has been actively pursued in collaboration with the Technical Assistance Administration. Details of these activities are set forth in the review of international statistics (E/CN.3/249).