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TECHNICAL CO-OPERATION

Technical co-operation activities in statistics

Report of the Secretary-General

Summary

The present report summarizes the technical co-operation programmes in statistics of organizations of the United Nations system and several multilateral and bilateral organizations outside the United Nations system for the period 1985-1988. It updates the previous report on the subject (E/CN.3/1987/17), which covered the period 1983-1986.

The report provides information on the main components of the programmes of the United Nations system (paras. 3-52). Information is presented on technical co-operation activities of United Nations Headquarters and the regional commissions (paras. 6-30), the specialized agencies (paras. 31-52). Information supplied by other multilateral and bilateral agencies is summarized (paras. 53-87).

In addition, the report discusses current activities and issues in statistical training (paras. 88-90) and emerging issues in statistical data processing, including the role of microcomputers in overall statistical data processing (paras. 91-96). Points for discussion by the Statistical Commission are included (para. 97).

* E/CN.3/1989/1.

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INTRODUCTION

1. At its twenty-fourth session, the Statistical Commission requested the Secretary-General to submit to it at its twenty-fifth session a report on technical co-operation in statistics, taking into account the suggestions made by the Commission during its twenty-fourth session. 1/

2. The information on technical co-operation in statistics contained in chapters I and II below and in the annex was supplied by the organizations and Governments responding to questionnaires sent from the Statistical Office of the United Nations Secretariat. There was considerable difficulty in standardizing the estimates provided by the various organizations. In many cases, it was difficult for organizations to identify and measure separately technical co-operation activities and regular work programme activities. Despite the non-compatibility and limitations of the estimates, the aggregated figures provide some indication of the overall magnitudes involved and the broad changes in them. In view of the problems of comparability, no attempt was made to aggregate the expenditures under bilateral programmes with those of multilateral agencies.

I. TECHNICAL CO-OPERATION PROGRAMMES OF THE UNITED NATIONS SYSTEM

3. The data are aggregates of individual submissions from the statistical offices of the United Nations, the regional commissions, the International Labour Organisation (ILO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO). The expenditure data of United Nations Headquarters include some components attributable to demographic analysis and projections, and the data should be viewed in that context. In addition, data were provided by the Universal Postal Union (UPU), the International Civil Aviation Organization (ICAO), the World Bank and the International Monetary Fund (IMF) submitted written statements but not data.

4. Table 1 presents estimates of the overall level of funding of technical co-operation in statistics by the United Nations system during the period 1985-1988. The annual average expenditure of the United Nations system was estimated to be \$38.5 million during the four-year period. However, the estimated budget for 1988 is \$41.6 million, and expenditure is expected to increase in 1989 with support from the United Nations Population Fund (UNFPA) for country projects related to the 1990 round of population and housing censuses.

Table 1. United Nations system expenditure on technical co-operation in statistics by main form of activity, 1985-1988 a/

(Thousands of United States dollars)

Activity	1985		1986		1987		1988 <u>b/</u>	
	\$	%	\$	%	\$	%	\$	%
Total	38 372	100.0	35 184	100.0	38 846	100.0	41 570	100.0
Personnel, total	21 997	57.3	22 196	63.1	25 213	64.9	27 631	66.5
Headquarters	9 232	24.1	8 271	23.5	8 539	22.0	8 932	21.5
Field	12 765	33.3	13 925	39.6	16 674	42.9	18 699	45.0
Training	5 164	13.5	4 269	12.1	4 870	12.5	5 625	13.5
Provision of equipment	9 750	25.4	6 763	19.2	6 697	17.2	5 790	13.9
Miscellaneous	1 461	3.8	1 956	5.6	2 066	5.3	2 524	6.1

a/ The summary data are based on submissions by the United Nations, the International Labour Organisation, the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization and the World Health Organization.

b/ Estimate.

5. Table 1 also provides information on the overall expenditure of the United Nations system by main form of technical co-operation activity, namely, staff (headquarters staff and field experts), training, equipment and miscellaneous activities. The personnel component increased from 57.3 per cent at the beginning of the period to 66.5 per cent in 1988, owing to a substantial increase between 1985 and 1988 in field staff (country experts and consultants). The training component constituted an average of 12.9 per cent during the period with no significant variations. Provision for equipment decreased substantially from the 25.4 per cent in 1985 to 13.9 per cent in 1988. This decrease is largely due to the increasing use of microcomputers in statistical work and the decrease in prices of computer equipment.

A. United Nations

6. The United Nations technical co-operation programme in statistics refers to the programmes of the Department of Technical Co-operation for Development (DTCD) of the United Nations Secretariat and the regional commissions of the United Nations. During 1985-1988, technical co-operation in statistics and in statistical data processing was primarily aimed at assisting developing countries to strengthen and extend national services and capabilities for collecting, processing, disseminating and using a broad range of development related statistics. Projects covered such topics as general economic statistics and national accounts as well as social and demographic statistics, statistics on women and special population

groups and integrated statistical services. Continued support was provided for projects associated with household sample surveys, more fully described in document E/CN.3/1989/18, and statistical data processing and informatics. During the period special efforts were devoted to the problems of those developing countries that are the least advanced in statistics. The period was also characterized by increased national and international work related to the 1990 round of population and housing censuses. The total United Nations technical co-operation programme in statistics provided technical support for the formulation and execution of country projects at a cost of \$21.4 million for 1987. This represents 55 per cent of the reported total expenditure for technical co-operation projects in statistics of the United Nations system. Expenditures by components are given in annex table 1.

Headquarters staff

7. Headquarters staff includes the personnel based at United Nations Headquarters and the headquarters of the regional commissions. These personnel were engaged in technical support for the formulation and execution of country projects and related technical co-operation responsibilities. During the 1985-1988 period the average cost of such staff was \$4.6 million a year. Table A.1 shows the yearly distribution. There are two interregional advisers based at United Nations Headquarters, one in demographic and social statistics and one in statistical data processing and informatics. In addition, there are 16 technical advisers who provide full-time support for technical co-operation activities in a variety of subject areas and in statistical data processing and informatics, including work on national accounts and general economic statistics, National Household Survey Capability Programme (NHSCP), demographic and related statistical projects, statistical training and statistical data processing. In addition, two technical advisers (see para. 93 below) are attached to a project concerned with the development and distribution of software packages for processing and analysis of population statistics data. In the regional commissions there were 25 regional advisers in statistics and statistical data processing in 1988: 12 at the Economic Commission for Africa (ECA), 5 at the Economic and Social Commission for Asia and the Pacific (ESCAP), and 6 at the Economic and Social Commission for Western Asia (ESCWA) and 2 at the Economic Commission for Latin America and the Caribbean (ECLAC). In addition to the technical advisers, regular staff members of the Statistical Office of the United Nations Secretariat and the statistics divisions of the regional commissions provided overall substantive direction to technical co-operation activities in statistics and carried out specific technical co-operation missions and functions.

Field staff

8. Field staff comprise all staff employed at the country level whose duties are directly related to the execution of, and whose remuneration is charged to, country projects. Such staff may be short-term consultants or resident experts. In 1985 a total of 157 persons were engaged in country projects executed by the United Nations as consultants or experts at a cost of \$6.8 million. The number of such staff increased to 202 in 1988. The total cost is estimated at \$10.2 million for 1988, representing 42 per cent of the total cost of the technical co-operation programme of the United Nations.

Training

9. The expenditure on training increased from 15 per cent to 17 per cent of the total cost of the programme during the period under review. Training expenditure covered fellowships, study tours, participation in training workshops and seminars. Although some of the fellowships led to academic degrees, most of them were designed to provide applied training. Indeed, most country projects provide support for an explicit training component. In addition, all resident experts and most short-term consultants are expected to provide training to counterpart staff during their assignment.

10. Over and above training activities associated with country projects, a number of training activities are financed as part of interregional, global and regional projects (training activities of the regional commissions are described briefly in paragraphs 18-30 below). With regard to interregional and global projects, an interregional project for training junior statisticians and programmers was initiated in the biennium 1982-1983 with financing from the DTCD regular programme. The objective of the project is to develop and strengthen the capability of and linkages among the developing countries through promotion of technical co-operation among developing countries. The project has been extended through the 1988-1989 biennium in recognition of its usefulness. During 1984-1985, 23 fellows from 10 countries received training in 9 developing countries. Of the 10 countries that benefited from the project, 5 were least developed countries; the others were statistically less developed. During 1986-1987, 30 candidates from 9 developing countries were trained in 9 developing, but statistically more developed countries. Of the 30 trained, 10 were women. The fields of training covered under the project were census and survey cartography, statistical sampling, census and survey field organization, national accounts, price statistics, household survey, civil registration and vital statistics and data processing. Under this project attempts are being made to give on-the-job training to statisticians from the five African Portuguese-speaking countries. The training is expected to take place in Brazil.

11. Following up a training workshop for users and producers of statistics on women held at Praia, Cape Verde, 4-12 November 1985, a training manual for work in this field was published in Portuguese, financed by the DTCD regular programme (Compilando Indicadores Sociais Sobre a Situação das Mulheres em Países de Expressão Portuguesa (United Nations publication, INT-84-R91, 1987)).

12. The United Nations has continued the training programme for statisticians under its rouble (USSR) component of the regular budget. Two courses with two sessions annually were conducted in Tashkent, Union of Soviet Socialist Republics, one on economic statistics and the other on collection and processing of statistical data. Developing countries were notified well in advance of each course to nominate candidates. The selection criteria have been standardized. However, among the eligible candidates, preference is generally given to applicants from statistically less developed countries and to women candidates. During the reporting period, approximately 15 fellows attended each session of the training programme.

13. With UNFPA assistance a project has been established for census training in sub-Saharan African countries with multi-bilateral support from the Government of Canada. The project has three components: national courses, subregional courses and an international fellowship component. The national and subregional courses are being organized by the ECA. Each course covers an area of census activity, such as census cartography, census organization, data processing, data analysis or use of software. Under the international component, short-term training courses have been organized in collaboration with Statistics Canada on the use of sampling for censuses.

14. A UNFPA project on population census data base development and training was started in 1988 and is expected to be completed in 1991. The objective of the project is to provide developing countries with the capability to utilize census results more effectively, through the development of more effective approaches and methodologies for user-oriented census data bases on microcomputers and through training of a core of census staff capable of preparing appropriately integrated data bases and related user guides. Under the project, a series of interregional workshops will be organized to train national staff of developing countries to disseminate the know-how concerning the uses and methods of census data bases. Since the twenty-fourth session of the Statistical Commission, DTCD with technical support from the Statistical Office, has convened the following interregional workshops: (i) Interregional Workshop on Statistical Data Processing and Data Bases in the Developing Countries, held in Geneva in May 1988; and (ii) International Training Workshop on Development of National Level Micro-computer Data Bases on Disability for Population Studies and Development Planning, held in Hungary in November 1988.

Equipment

15. Equipment provided under United Nations technical co-operation programmes in statistics includes computer hardware and software, vehicles, cartographic and printing equipment and general office equipment. The annual share of the equipment component of the total expenditure of technical co-operation programme in statistics of the United Nations was 34 per cent in 1985, 25 per cent in 1986 and 21 per cent in 1987. Data for 1988 are budget figures and will be adjusted at the end of the year. In absolute terms the annual expenditure was \$7.8 million in 1985, \$5.0 million in 1986 and \$4.5 million in 1987. The decrease in the expenditure is due to the increased use of microcomputers in statistical work and to the declining cost of computer equipment.

Expenditure by subject area

16. Technical co-operation projects executed by the Department of Technical Co-operation for Development, with the substantive support of the Statistical Office, covered a wide variety of statistical subjects and capabilities. Projects in demographic and social statistics, including population censuses, had the largest share of total expenditure, as shown in annex table 2. Expenditure on demographic and social statistics was \$8.8 million in 1985 and decreased slightly to \$8.5 million in 1986 as the 1985 round of the World Population and Housing Census Programme ended. It increased to \$9.8 million in 1987, and it is budgeted

at \$12.1 million in 1988 with the beginning of the 1990 round of population censuses. These expenditures include advisory services, training and equipment. Equipment includes in addition to terminals and computers for processing population census data, cartographic equipment and vehicles needed to ensure that field work is adequately supervised. Expenditure on data-processing projects not directly related to population censuses was the second largest component, followed by economic statistics and multisector statistics projects.

Expenditure by region

17. A regional breakdown of expenditure by United Nations Headquarters in New York and the regional commissions is given in annex table 3. During the period under review there was an increasing trend in expenditure for country projects and other technical co-operation activities in Africa. In 1987 United Nations Headquarters spent \$6.6 million for projects and other forms of assistance in the African region, and ECA spent an additional \$1.2 million in regional support. This makes Africa the major recipient of technical co-operation within the United Nations.

1. Economic and Social Commission for Asia and the Pacific

18. ESCAP provided technical co-operation to developing countries in the region in various areas of statistics at a cost of \$748,000 in 1985, \$809,000 in 1986, \$760,000 in 1987 and \$887,000 in 1988. In 1988, of the total ESCAP expenditure of \$887,000, \$295,000 (33.2 per cent) was allocated to support population censuses and surveys, \$116,000 (13.0 per cent) to national accounts, \$107,000 (12.0 per cent) to data processing, \$154,000 (17.3 per cent) to household surveys) and \$215,000 (24.2 per cent) to other areas of statistics, including energy and agricultural statistics.

19. In co-operation with the Government of India, ESCAP has conducted 16-week training courses in New Delhi on household survey methodology and on related electronic data processing. Under this programme which started in 1982, four courses have been conducted, providing training for 148 statisticians from the region. In 1988 training under this programme will be restricted to least developed countries.

20. ESCAP continued to take great interest in the development of population and housing census capabilities in the region. In 1986 and 1987 ESCAP convened working groups on the World Population and Housing Census Programme, 1985-1994. These meetings focused on updating and modifying regional recommendations for use in future censuses. Technical advisory services in data processing of population censuses and surveys are also provided to countries in the area on request, free of charge under a UNFPA-funded project.

2. Economic Commission for Latin America and the Caribbean

21. ECLAC's expenditure on technical co-operation in statistics was \$116,000 in 1985, \$433,000 in 1986 and \$560,000 in 1987, and \$597,000 in 1988.

22. During 1987, advisory services were provided on a continuous basis to 17 countries in the region, in such fields as household surveys, national accounts methodologies, foreign trade indexes and the upgrading of national statistical systems in general.

23. ECLAC participated in the UNDP-financed project for the development of the national statistical system in Guatemala, as an associated executing agency with the Department of Technical Co-operation for Development. Progress has been made in the integration of national entities into the national statistical system and the elaboration of national accounts. The project has been carried out with the assistance of a number of Latin American consultants, ECLAC's participation in supporting, monitoring and evaluating missions and the active participation of national authorities. The training programme envisaged for the period under review has been fully accomplished with the collaboration of the Inter-American Statistical Training Center of the Organization of American States (CIENES/OAS). UNDP also provided financial support for the project Information System for Public Management (SIGEP/GUA-87-0006), which was initiated during the last quarter of 1987 in Guatemala. In the area of national accounts, ECLAC acted as associated executing agency for a three-year project in Venezuela. In connection with NHSCP, ECLAC has again been entrusted with the responsibility of associated executing agency, for two country projects - one in Costa Rica and the other in Honduras - sponsored by the Inter-American Development Bank. The Honduras project started in September 1986; the Costa Rica project started in 1987 and has been extended for another 10 months.

24. A regional project aimed at transferring computing packages to the region was initiated in 1987. Similar packages were already tried in the European statistical media - for electronic data processing, tabulation, data bank construction and meta-data elaboration. With the technical support of the Economic Commission for Europe, two packages have been installed at ECLAC, and a complete set is expected to be transferred to Latin American and Caribbean national statistical offices during the project's implementation. A regional workshop for training purposes was scheduled for late 1988. Execution of this project depends on funding from UNDP, on technical assistance from European statistical bodies, on relevance ascribed to the programme by the countries of the region and on ECLAC as an executing agency. Among numerous other activities, ECLAC undertook the formulation of a joint Government/donor/ECLAC/CELADE project in preparation for the 1990 round of population censuses. This project has been submitted for funding to UNFPA.

3. Economic Commission for Africa

25. ECA provided technical co-operation for support of activities in demographic surveys and population censuses, statistical training, household surveys and national accounts statistics. ECA expenditure was \$1.2 million a year in 1985, 1986 and 1987, and \$1.5 million in 1988. In 1988, of the total budget, \$772,000 (50.7 per cent) was allocated to the support of demographic surveys and population censuses and \$748,000 (49.3 per cent) to household surveys.

26. A team of ECA regional advisers in demographic statistics monitored and provided technical support to population censuses, demographic surveys, civil registration systems and vital statistics programmes. About 60 missions were carried out each year. During the reporting period there were two working group meetings in Addis Ababa. One meeting, on civil registration Systems and vital statistics collection in Africa, was held in October 1985 and was attended by 28 experts from 20 African countries. The second meeting was on recommendations for the 1990 Round of Population and Housing Censuses in Africa (May 1987) and was attended by 19 member States and 6 international organizations. A training workshop on population and housing censuses for English-speaking African countries was held in October 1987. It was attended by 14 senior statistical office staff from 13 countries. Household survey programmes were provided with technical guidance in the following countries: Benin, Botswana, Burundi, Cameroon, Côte d'Ivoire, Djibouti, Ghana, Kenya, Malawi, Morocco, Nigeria, Rwanda, Sierra Leone, Swaziland, Zambia, Zaire, Zimbabwe. In addition, two training workshops were conducted with the assistance of the Federal Republic of Germany, the first for French-speaking African countries in October 1986; the second in English and French in November 1987. Advisory services were provided to a number of countries for the purpose of improving their national accounts statistics. Two training workshops were conducted during the period: (1) Review of the United Nations System of National Accounts (SNA) from 29 September to 3 October 1986, and (2) Workshop on Capital Formation and National Accounts at Constant Prices from 28 September to 2 October 1987.

27. ECA provided statistical training to African countries in the framework of the Statistical Training Programme for Africa (STPA). Advisory missions were undertaken for the purpose of assisting countries in introducing or implementing in-service training programmes at national statistical offices, or middle-level training at the national level. Seventeen African countries were visited during the period 1985-1988. Assistance was provided to two countries, the Gambia and Mozambique, in the formulation of project documents for the introduction of in-service training programmes. In addition, consultants were provided to STPA centres to lecture on specific topics in applied statistics, and at some centres training advisers participated in advisory board meetings.

28. Special assistance was provided jointly with the European Economic Community (EEC) to Portuguese-speaking African countries. Directors of the participating national statistical offices met in May 1987 and in February 1988 to discuss programmes and the related issue of guide syllabuses for middle- and professional-level training. One consultant was recruited in 1987 to prepare the middle-level guide syllabus for the Portuguese-speaking African countries. In November 1987 a mission to Guinea-Bissau was undertaken (jointly with EEC and Portugal) to study the feasibility of establishing a national statistical training centre there for middle-level personnel.

4. Economic and Social Commission for Western Asia

29. ESCWA's technical co-operation in statistics consisted mainly of support activities in household surveys, data processing, population statistics, national accounts statistics and industrial statistics. ESCWA's total expenditure on technical co-operation in statistics was \$1.7 million for 1985, \$2.0 million for 1986, \$1.6 million for 1987 and \$2.2 million for 1988.

30. Advisory services were provided to 11 countries of the ESCWA region. The National Household Survey Capability Programme team organized three training workshops to assist countries of the ESCWA region with household survey methodology: data processing of household surveys in Egypt (1986), sampling techniques (1986), and development and design of statistical questionnaires for household surveys in Egypt (1987). On-the-job training in conducting surveys and data processing was provided to 11 countries. In post-survey seminars recommendations for improvements were made and adopted.

B. Specialized agencies

1. International Labour Organisation

31. ILO's expenditure on technical co-operation in statistics was \$331,000 in 1985, \$539,000 in 1986, \$670,000 in 1987 and \$723,000 in 1988 (table A.1). In 1987, \$360,000 was spent in the African region, \$180,000 in the Latin American and Caribbean region, \$90,000 in the Asia and Pacific region, and \$20,000 in the West Asian region. In 1988 ILO had four regional advisers: two in the African region and one each in the Asia and Pacific and Latin American and Caribbean regions. The cost for all four was \$130,000. In addition, during 1988 four staff members at headquarters provided support for programme formulation, technical guidance and evaluation at a cost of \$315,000.

2. Food and Agriculture Organization of the United Nations

32. FAO provided technical co-operation in food and agriculture and fisheries statistics. FAO expenditure on technical co-operation in statistics was \$4.5 million in 1985, \$5.5 million in 1986, \$7.1 million in 1987 and its estimate for 1988 was \$7.7 million (table A.1).

33. In 1988 FAO provided 102 work-months of headquarters staff, including regional advisers, towards programme formulation, support, technical guidance and evaluation, at a cost of \$640,000. The number of field experts assigned to country projects in 1988 was 120, at a cost of \$4.6 million. Table A.2 indicates that expenditure on food and agriculture statistics was \$7.3 million in 1988, followed by \$421,000 on fisheries statistics.

34. A breakdown by region (table A.3) shows that expenditure on projects in the African region was \$5.1 million, the largest in 1988, followed by \$1.9 million in the Asian and Pacific region, \$402,000 in the West Asian and Mediterranean region

and \$336,000 in the Americas. During this period emphasis was on assisting countries to start timely preparation for organizing the 1990 round of national agricultural censuses. Sizeable assistance was provided to countries in an attempt to improve their crop-reporting systems as a part of national food security programmes and early warning systems on food availability. In data processing the emphasis is on promoting commercial packages such as SAS, SPSS and dBase III in particular with regard to microcomputers. A manual entitled "Micro-computer-based data processing, 1990 World Census of Agriculture" was prepared. In 1988 FAO spent some \$1.3 million on equipment, including data-processing equipment. Now the emphasis is on promoting agricultural data base AGROSTAT, originally developed for the use of FAO headquarters. AGROSTAT is expected to be useful to countries in the development of their national data base and in promoting timely transmission of data from countries to FAO.

3. United Nations Educational, Scientific and Cultural Organization

35. UNESCO provided technical co-operation in education, science and technology statistics, and culture and communication statistics. Total expenditure on technical co-operation in statistics was \$1.0 million in 1985, \$888,000 in 1986, \$630,000 in 1987 and \$801,000 in 1988 (table A.1).

36. In 1988 UNESCO provided 39 work-months of support at an estimated cost of \$315,000 towards programme formulation and technical guidance by headquarters staff, including two regional advisers. The number of field experts in 1988 was six, at a cost of \$193,000. As shown in table A.2, in 1988, expenditure on education statistics was \$621,000, whereas expenditure on science and technology statistics was \$26,000 and on culture and communication statistics, \$23,000. UNESCO's expenditure on technical co-operation in statistics by region (table A.3) indicates that, in 1988, expenditure in Africa was \$260,000, in Asia and the Pacific \$163,000, in Latin America and the Caribbean \$125,000, and in Western Asia and the Mediterranean \$73,000.

37. Statistical training has been the most significant activity during recent years. Training was provided mainly in the form of short training courses organized in member countries in areas falling within UNESCO's fields of competence: education, science and technology, and culture and communication. These courses were of one or two weeks' duration. Participants were from either one country (national courses) or from a region or subregion. Over the last few years, the Swedish International Development Authority (SIDA) has provided funds for financing national training courses in education statistics for a number of Portuguese- and English-speaking African countries and for one country in Latin America. Training is done by staff members of UNESCO's Office of Statistics, at times with the assistance of outside consultants. During the years 1985-1987, 37 training courses were organized and were attended by 1,026 officials from member States.

38. UNESCO's Office of Statistics has recently developed autonomous and integrated microcomputer software for the analysis of education statistics and projections of school enrolment.

4. International Civil Aviation Organization

39. During the period 1985-1987, States relied mainly on air transport economists located at ICAO regional offices to provide them with aviation statistics. Some UNDP-financed country or regional projects required the assistance of air transport economists and other experts who provided technical guidance and were available for consultation in developing and improving aviation statistics programmes within States.

40. The statistical staff at ICAO headquarters continued to provide technical support and consultation to the ICAO Technical Assistance Bureau on projects and project proposals in which a significant amount of statistical data collection or data analysis was involved. During the period under review no formal courses in statistics were organized at aviation training centres. Short courses were conducted through ICAO regional offices at either the regional or the country level when need was expressed by one or more States. The duration of these courses was about one week. They were conducted by ICAO statistical offices or regional air transport offices. In addition, ICAO experts on assignments often spend considerable amounts of time training counterparts who can follow up their work when they leave.

41. To providers and users of ICAO civil aviation statistics, technical guidance is given in the Manual on the ICAO Statistics Programme, third edition, published in 1984. This manual incorporates changes in the statistics programme resulting from the last session of the ICAO Statistics Division. Three statistics workshops were conducted in different regions of the world during 1985-1987, and one was planned for 1988. The workshops' duration is about one week, and they are assisted by statistical experts from ICAO headquarters.

5. World Health Organization

42. WHO has continued to render technical co-operation in health statistics to developing countries. As shown in table A.1, expenditure in 1985 was \$9.4 million; in 1986 it was \$8.3 million; in 1987, \$9.0 million; and in 1988 it is estimated to be \$8.2 million. In 1988 total work-months involving technical support for programme formulation, technical guidance, including regional advisers, was estimated to be 242 at a cost of \$2.4 million, the number of field experts was 33 at a cost of \$3.3 million and expenditure on training was \$670,000, and on equipment, \$1.3 million.

43. The regional breakdown of WHO expenditure shown in table A.3 indicates that, in 1988 expenditure in the Americas was \$3.6 million, followed by \$1.9 million in Africa, \$1.6 million in Asia and the Pacific, and \$1.1 million in Western Asia and the Mediterranean.

44. Training materials for statisticians and health managers working with health and nutrition surveys were developed. A joint WHO/ECA United Nations Statistical Office/UNICEF training workshop was held in the African region in an attempt to improve estimates of the national health indicators and to strengthen their health information systems. A similar training workshop sponsored jointly by WHO, UNICEF, ESCWA, UNFPA, the League of Arab States and the United Nations Statistical Office will be undertaken in the Eastern Mediterranean region on the design and management for pan-Arab maternal and child health surveys.

45. Teaching Health Statistics: Twenty lessons and seminar outlines, a basic curriculum in health statistics designed primarily for senior-level training, was published. It is now available in English and Spanish and is expected to be translated shortly into several other languages. Computerized simulation models of certain communicable diseases have been prepared for distribution and modified for microcomputers. A map-linked data base system linking geographical maps to epidemiological data is being developed allowing for dialectical maps. The aim of these "living" maps is to make the data policy related and intelligible to health planners and decision makers. First a computer-assisted presentation (CAP) was developed to be used as a tool in the management process of planning national health development. This software is available for microcomputers.

46. Another development was the "Drugs for the elderly" (DFTE) electronic booklet, which is now also available for microcomputers. This booklet allows access to information on drugs for the elderly either by symptom or by name of drug. Developing microcomputer software for abridged life tables has begun. The use of hand-held microcomputers for data capture in health and nutrition surveys was initiated and pilot studies are under way. Small-area estimation techniques at the country level are being developed and tested on health survey data. Guidelines were developed for health and nutrition modules to be incorporated in National Household Survey Capability Programme surveys. The possibility of using panels of "knowledgeable" persons to provide morbidity and utilization information in the absence of complete or specific data is being investigated.

6. World Bank

47. The Bank's activities in the field of technical co-operation in most instances take the form of short missions to review macro-economic statistics (national accounts) and to provide assistance in the recording and reporting external debt data, an area of statistics for which the Bank has prime responsibility. In addition, the Bank's staff, assisted by consultants, undertake missions to member countries to review the functioning of national statistical systems and identify organizational aspects in need of improvement. Whenever a need for technical assistance or for help in the preparation of projects is identified, funding is provided by the Bank either in the form of loans or credits for larger technical assistance projects covering public administration, or through financing provided by other multilateral or bilateral donors.

48. Table 2 gives an indication of the type and scope of the Bank's assistance.

Table 2. World Bank technical assistance missions in statistics

Year	Missions	Est. staff weeks	Asia	Africa	Latin America	Other
<u>National accounts and economic statistics</u>						
1985	22	66	2	5	10	5
1986	18	54	-	10	5	3
1987	14	42	1	8	3	2
<u>External debt statistics</u>						
1985	29	73	7	12	9	1
1986	43	89	6	15	14	8
1987	36	90	4	13	8	11

Note: The decline in 1987 was in part due to a decline in mission travel when the Bank was being reorganized.

7. International Monetary Fund

49. The provision of technical assistance in statistics constitutes a major part of the work of the Fund's Bureau of Statistics. IMF makes such assistance available through missions to member countries and visits to Fund headquarters by national technicians.

50. The primary objective of the technical assistance programme is to assist member countries in making their data more current and expanding the scope of the data base which they use for monitoring economic and financial developments. Technical assistance is provided for the most part through missions undertaken in response to requests from member countries. Technical assistance is concentrated in five major fields of statistics which are of particular significance to the Fund, analytically and operationally, namely, money and domestic banking, balance of payments, government finance, international banking and external debt, and general economic data. During 1987 a total of 67 missions were undertaken involving assistance to 52 member countries and two regional organizations. Among these were seminars in money and domestic banking statistics and local government statistics. Technical assistance to member countries continues through training courses offered by the Bureau of Statistics at the IMF Institute. In 1987 seven officials from member countries were given training by the Bureau in various fields of statistics.

8. Universal Postal Union

51. UPU provided technical assistance in the form of training principally for the determination of mail volume, work measurement studies and rate fixing. Work was undertaken by consultants in the appropriate methodologies for application in the postal services.

52. In 1985 the UPU expended \$113,100 on its technical assistance programme. In 1986, expenditure increased to \$158,300. In 1987, it was \$115,000 and in 1988, it was estimated at \$96,200. UPU expended \$54,400 on its training programme in 1985. This increased to \$60,100 in 1986, was \$42,700 in 1987 and was estimated at \$36,000 in 1988. During 1987, assistance was given to 14 countries in the African region at a cost of \$65,900, to four countries in the Asian and Pacific region at a cost of \$41,400 and to two countries in the Latin American and Caribbean region at a cost of \$7,700.

II. OTHER MULTILATERAL AND BILATERAL TECHNICAL CO-OPERATION PROGRAMMES

A. Other multilateral programmes

53. Responses were received from one other intergovernmental organization and one non-governmental organization. In addition, information was provided by EUROSTAT for the revision of the Directory of Technical Co-operation in Statistics (ST/ESA/STAT/105/Rev.2). No responses were received from several other intergovernmental organizations known to be active in technical co-operation in statistics.

1. Council for Mutual Economic Assistance

54. The CMEA member countries, within their stipulated guidelines, provided technical assistance in the field of statistics to Cuba, Mongolia, Romania and Viet Nam. This assistance took the form of training, provision of technical expertise, preparation of methodological materials, provision of equipment and assistance in the field of scientific research.

55. During the period 1986-1987, training was provided to some 105 professionals from the statistical offices of Cuba, Mongolia and Romania. The subject-matter covered included trade statistics, economic statistics, industrial statistics, agricultural statistics and electronic data processing. Seminars and workshops in the various areas of statistics were conducted in the Central Statistical Office of CMEA member countries. During the period under review 12 experts were engaged in providing technical expertise to Cuba, Mongolia and Romania. Assistance in the preparation of methodological material was given to Cuba, Mongolia and Viet Nam. Computer data-processing centres were established, and computer equipment was provided to Cuba, Mongolia and Romania.

2. International Statistical Institute

56. ISI provided technical assistance to developing countries in various areas of statistics at a cost of \$440,700 in 1985, \$686,900 in 1986, \$552,100 in 1987 and \$499,400 in 1988. During the period under review the emphasis was on training and the development of technical guidance designed for developing countries. In 1988 the preparation of technical manuals accounted for \$277,000 or 55.4 per cent of the total budget. Assistance to the African region in 1988 amounted to \$180,900 (32.7 per cent) and to the Asian and Pacific region, \$222,700 (44.5 per cent).

3. Statistical Office of the European Communities

57. The technical co-operation activities of EUROSTAT are of two kinds: activities conducted by the Community itself through units of the Commission; and harmonization of the co-operation programmes of member States. The main aspects of this co-operation relate to statistical training, foreign trade, food policies and rural development.

58. EUROSTAT has participated in the Programme of Statistical Training for Africa (PFSA). It has sought to expand advanced training for French-speaking statisticians in Africa and has contributed to the establishment of training centres for African statisticians from countries whose official language is Portuguese. The programme for the coming years will consist in co-ordinating the training of statisticians supported and funded by the Community.

59. The experience gained in West Africa concerning the improvement of foreign trade statistics will be extended to other countries in Africa, the Pacific and Latin America. This will involve improving and harmonizing the foreign trade statistics of developing countries and of their regional organizations.

B. Bilateral programmes

60. Responses outlining technical co-operation in statistics were received from 13 countries: Australia, Austria, Canada, German Democratic Republic, Germany, Federal Republic of, Hungary, Italy, Norway, Netherlands, Spain, Switzerland, United Kingdom of Great Britain and Northern Ireland, and United States of America. In addition, information on Japan was based on the updated information provided for the revision of the Directory of Technical Co-operation in Statistics. Yugoslavia responded that during 1985-1988, its Federal Statistical Office did not provide technical assistance to developing countries. The information supplied is summarized below. It should be noted however, that the summary of activities is not exhaustive. A number of agencies did not have the capacity to provide the information requested because the level of detail would require a manual review of all of their operational projects during the past three years.

1. Australia

61. Australia continued to provide technical co-operation in statistics in the form of assistance to statistical offices of developing countries in the ESCAP region. During 1985-1988 the Australian Bureau of Statistics (ABS) provided advisory services totalling 47 staff-months, of which 17 were devoted to training. The most significant activities during 1985-1988 were as follows: first, for seven months in 1987 and one month in 1988 consultancy assignment of an ABS expert to two small Pacific countries to help develop national accounts in the countries concerned; second, in 1988 consultancy for up to three staff-months assignments of ABS experts to a South-East Asian country to advise on preparations for population census. In addition to time spent outside Australia, ABS experts are expected to spend up to a total of three staff-months in Australia working on this project (statistical staff from the country receiving assistance also visit Australia); third, for six months in 1988 an ABS expert is expected to be on consultancy assignment to a small Pacific country to offer advice on conducting a household survey.

62. During the period 1985-1988 Australia provided on-the-job training, including participation of 50 staff from ESCAP countries in study tours for a total of 54 staff-months. Training was offered in the areas of economic and national accounts statistics, population censuses and surveys.

2. Austria

63. In the biennium 1985-1986 Austria spent \$88,000 for technical co-operation for a total of 18 work-months, assisting a country with its population census.

3. Canada

64. Canada's technical co-operation is provided through the Canadian International Development Agency (CIDA). Since the area of statistics is not treated as a sector by itself, it is somewhat difficult to identify all that is being done in that field. However, some statistics-related activities are being carried out as components of CIDA's population projects.

65. During the period under review CIDA is providing support for population censuses in three countries as follows: Mali - \$Can 235,000 for local costs, Senegal - \$Can 2,260,000 for local costs, and Kenya - \$Can 500,000 in technical assistance, training and equipment. CIDA also contributed \$Can 900,000 to UNFPA support to censuses in sub-Saharan countries in addition to \$Can 3 million for census-related training in that region. For the National Household Survey Capability Programme (NHSCP), CIDA provided support of \$Can. 3.1 million to the UNDP programme in Bangladesh, and \$Can 2 million for Pakistan.

66. CIDA provides support to the International Development Research Centre (IDRC) to assist in the collection of baseline census data on resettled populations of Ethiopia in order to develop rational plans for the provision of health, agricultural and social services in affected areas.

67. Under the Exchange and Collaboration Programme CELADE/CIDA, Phase II, CIDA provided \$Can 6 million assistance to CELADE to enhance and expand its activities in all sectors, notably in reinforcing National Statistical Offices in many Latin American countries. Phase III of the programme is now in its planning stage.

4. German Democratic Republic

68. During 1985-1987 the State Central Statistical Office of the German Democratic Republic continued its support of statistical activities in developing countries. These activities included the sending of experts and consultants to developing countries and the training of staff of developing countries in the German Democratic Republic. During 1985-1987, 97 work-months were spent on advisory services and training seminars.

5. Federal Republic of Germany

69. During 1985-1987 the Federal Republic of Germany spent \$60 million in implementing its programme of technical co-operation in statistics. Of this \$58.6 million was spent for training, the rest for advisory services and equipment. The largest share of expenditure was in the African region.

6. Hungary

70. The Central Statistical Office is the main agency in Hungary dealing with technical co-operation in statistics, which encompasses virtually all of its fields. One main area of technical co-operation is training and technical consultancies offered by the Computing Application and Service Company (SZAMALK). Since 1973 SZAMALK has been the regular organizer of public and in-company courses. These seminars have been attended by more than 3,000 participants from 68 countries. During 1985-1988 Hungary provided technical support in statistics to 17 African, Asian and Pacific and Latin American and Caribbean countries comprising a total of 90 work-months.

7. Italy

71. As part of the programme of technical assistance in statistics, officials from the national bureau of statistics (ISTAT) are teaching training courses on labour statistics in Turin, Italy, and on agricultural census in Beijing. They also co-operate in the programme "Labour information system in China". An agreement has been signed with Argentina for an exchange of know-how in the statistical field, and a similar accord with China should shortly be reached.

8. Japan

72. Technical assistance in statistics is offered by Japan, in the form of training courses in various statistical fields. The Government of Japan is jointly conducting with the Statistical Institute for Asia and the Pacific (SIAP), under the technical co-operation programme of the Japan International Co-operation Agency (JICA), two training courses at SIAP. Both courses are held annually for statisticians of member countries for ESCAP. Besides offering training courses, the Government of Japan is providing to SIAP contributions in cash and in kind which contribute to the activities of the Institute.

9. Netherlands

73. The activities of the Netherlands Central Bureau of Statistics were limited in 1985 and 1986. In 1987 there was a short mission to Indonesia. In 1988 the Central Bureau of Statistics is planning to participate in a project in support of the Central Statistical Office of Swaziland and to undertake short missions to Indonesia, Malaysia, Pakistan, Philippines, Singapore and Thailand. In addition to these efforts by the Central Bureau of Statistics, several Netherlands organizations are also active in technical co-operation.

10. Norway

74. During the 1985-1986 biennium, Norway spent \$165,000 mostly through the provision of equipment for technical co-operation projects in developing countries. The projects were in two Asian and Pacific countries and in one African country.

11. Spain

75. Since 1978 the National Statistical Institute of Spain has supported a technical co-operation programme in statistics in the Latin American and Caribbean region. During the 1985-1988 period, an estimated \$340,000 was spent, of which \$300,000 went for the organization of training sessions and seminars.

12. Switzerland

76. During the 1985-1988 period Switzerland provided advisory services to Burundi in the form of experts assigned to the Faculty of Econometry of Bujumbura at a cost of about \$100,000 a year. Since 1987, Switzerland has also sponsored a number of other projects in statistics, amounting to \$5.5 million in 1987 and \$2.5 million in 1988.

13. United Kingdom of Great Britain and Northern Ireland

77. During the period 1985-1988 the United Kingdom provided a total of 649 work-months for advisory services and technical guidance at a cost of \$2,147,000. During the same period \$898,000 was spent on equipment. In 1986, the only year for which such data are available, 777 work-months were devoted to training at a total cost of \$1,129,000. For 1986 expenditure by region indicates that the largest amount was spent in the African region (\$1,179,000), followed by Asia and the Pacific (\$762,000), Latin America and the Caribbean (\$122,000) and Western Asia (\$12,000). For the same year a breakdown by subject indicates the following: \$890,000 for general statistics, including training and computing; \$879,000 for health and population statistics; \$176,000 for agricultural statistics; and \$131,000 for economic statistics.

14. United States of America

78. The United States continued to support a steady programme of co-operation in statistics through such governmental agencies as the Bureau of the Census, the Bureau of Labor Statistics, the Bureau of Economic Analysis, the National Agricultural Statistics Service and the National Center for Health Statistics. Expenditure for 1988 is estimated to reach \$13,479,000, indicating an increase of almost 12 per cent over 1985.

79. For the most part these agencies are reimbursed for the technical assistance they provide either by the United States Agency for International Development (USAID), by the recipient Governments, or by international organizations. In particular, the Bureau of the Census receives a substantial portion of its funding directly from other Governments (estimated at \$9.3 million for fiscal year 1988).

80. The Bureau of the Census provided technical expertise and training to a number of developing countries. In 1985, \$6,780,000 was spent on providing experts to a number of countries. The amount spent on these services increased to \$9,113,000 in 1988.

81. Training of participants from developing countries continued. The current 11-month programme consists of six curricula: sampling and statistical methods; food and agricultural statistics; demographic statistics; economic statistics; computer data systems; and survey methods. A new Spanish-language training programme servicing Latin America opened its second course in 1987. Enrolment increased to 38 from 8 in the previous year.

82. The Professional Skills Development Programme continues to offer core skills training to the Census Bureau's new professionals. Training is offered on a full-time basis for six weeks. Since the beginning of the programme in 1985, the staff has trained over 250 new employees.

83. For 1988 the estimated expenditure by region was as follows: \$6,300,000 in the West Asian region, \$2,203,000 in the African region, \$1,927,000 in the Latin American and Caribbean region and \$1,067,000 in the Asian and Pacific region. By

subject-matter, the estimated figures were \$5,200,000 for data processing, \$3,197,000 for economic statistics, \$2,400,000 for demographic statistics and \$700,000 for agricultural and other statistics.

84. The Bureau of Economic Analysis, a major contributor to the development of concepts and methods for estimating national economic accounts, continued its formal training programmes in the United States and through visits to countries by members of the BEA staff. They evaluated existing national economic accounting systems, conducted seminars and provided technical guidance. They provided formal training at both introductory and advanced levels in an 11-month programme, divided into seven major units and supplemented by seminars in complementary subjects. The programme concentrates on the development of an integrated system of national accounts based on the System of National Accounts.

85. The Bureau of Labor Statistics held a number of seminars each year. They were of four to eight weeks' duration and were held at its training facilities in Washington, D.C. Each seminar was designed to strengthen capabilities in the collection and analysis of economic, labour, and social statistics and in the application of the results to policy formulation, especially for human resources development. In addition to its Washington-based seminars, the Bureau of Labor Statistics conducted seminars overseas upon request. These seminars are tailored to local needs.

86. The National Agricultural Statistics Service has developed a six-week training course, offered annually in Washington, D.C., which covers basic agricultural statistics. It is geared toward statisticians and other professionals from other countries who are interested in the methodology and procedures which are used in the United States Department of Agriculture and may be adopted in their own countries. Short-term training on specific agricultural statistics topics is made available to visitors from other countries on a case-by-case basis.

87. The National Center for Health Statistics provided technical assistance in the design and implementation of health statistics research projects through the Special Foreign Currency Programme in Egypt, India and Pakistan. Short-term advisers were sent on ad hoc technical support missions to the Pacific Islands through special arrangements with WHO and to Portugal through arrangement with USAID.

III. ISSUES IN STATISTICAL TRAINING

88. Problems in statistical training raised during the twenty-fourth session of the Commission still persist. However, efforts were made during the past two years to ease the strain on national statistical offices of developing countries with regard to the attrition of trained personnel. More attention is given to the technical development of staff. In a number of countries ongoing in-service training of personnel is attracting more recognition from academic institutions. Governments are now formally accepting diplomas and certificates awarded upon successful completion of in-service training courses as proof of technical education.

89. Along with the regular courses offered for statistical training, countries have also recognized the importance of practical training. Resources available in developing countries with the capability to share expertise are being utilized for on-the-job training of personnel from statistically less-developed countries. During the period under review a special project has been created to offer statistical training in specific areas and to conduct population and housing censuses. If resources permit, subject areas of training should be expanded.

90. Since 1984 the Statistical Office has collaborated with the regional commissions and the International Research and Training Institute for the Advancement of Women in organizing national and subregional training workshops for producers and users of statistics and indicators on women in development. Workshops have been held in Indonesia, Nigeria, Pakistan, Sri Lanka, the Caribbean, Central America and East Africa and a training manual in this field was published in 1987 (Training Users and Producers in Compiling Statistics and Indicators on Women in Development (United Nations publication, Sales No. E.87.XVII.6)).

IV. ISSUES IN STATISTICAL DATA PROCESSING

A. Current activities

91. United Nations technical co-operation activities in statistical data processing continued the upward trend in the period 1987-1988, largely owing to the increased number of technical co-operation projects set up for the support of the 1990 round of population censuses. UNDP and UNFPA continued to fund the bulk of the activities by providing expert services, data-processing equipment, fellowship training programmes and other forms of technical support.

92. As part of supporting activities for the preparation of the 1990 round of population censuses, two UNFPA-funded projects are preparing manuals related to statistical data processing. One is a manual on statistical data processing on microcomputers and the other, on population census data-base development. Drafts of both manuals are expected to become available for field testing in early 1989. Based on field testing results, the drafts will be revised and a final draft will be ready for printing by the end of 1989.

93. The Software and Support for Population Data Processing project funded by UNFPA and executed by the Department of Technical Co-operation for Development continues to provide software and training for editing and tabulating population data, for demographic analysis of data and for population projections. A new software package for entry and edit of census or survey data, PCEDIT, was completed in 1988. Because of the widespread use of microcomputers in population programmes, including management information systems, the project has assembled a microcomputer global population data base as an example of using spreadsheet and data-base technology for organizing population data to support administrative and planning activities and to provide support training activities making use of national-level population indicators. From 1 January 1988 to 30 June 1988, the project supplied 162 software packages to 55 institutions in 39 countries. The project also conducts a number of training workshops at national or regional level.

B. Interregional Workshop on Statistical Data Processing and Data Bases in the Developing Countries

94. In order to identify common problems relating to statistical data processing in the developing countries and to find solutions for them, an interregional workshop was held in Geneva from 30 May through 3 June 1988. The workshop was sponsored by the Department of Technical Co-operation for Development with the substantive support by the Statistical Office of the United Nations and was organized in co-operation with the Economic Commission for Europe. Representatives from 14 developing countries participated in the workshop. Representatives from all the regional commissions of the United Nations and representatives of nine international statistical agencies were present at the workshop. Based on the various written and oral presentations, the technical papers made available to the workshop by different agencies and the extensive discussion, the workshop made a number of recommendations for measures to improve the capabilities of developing countries in statistical data processing and data bases. These recommendations covered both national measures and regional and international measures and are summarized below.

1. National measures

95. Data processing should be considered an integral part of any statistical exercise and be given the same priority as data collection. Similarly, timely dissemination and the establishment of effective data storage and retrieval systems should be viewed with equal importance. National statistical offices should be encouraged to hold seminars for both producers and users of data, for statisticians and data-processing personnel, so that methodology, content and use of data can be discussed in detail. The formulation of a national policy on the introduction and use of computer technology is essential in order to maintain compatibility and to ensure orderly growth. Data-processing personnel should be fully involved in the selection process of both hardware and software configurations. To attract and retain suitable personnel in the field of statistical data processing, career opportunities and financial incentives should be created appropriately. Data-processing personnel, statisticians and other subject-matter specialists should interact more closely and develop effective working relationships. To derive full benefits from technical co-operation projects, adequate and suitable national counterparts to the international data-processing expert should be provided. Data-processing procedures and programmes should be fully documented and maintained to assure continuity and minimize the consequences of losing experienced and trained personnel.

2. Regional and international measures

96. National statistical offices should be encouraged and given appropriate advice to move towards modern computer-assisted statistical data-processing methods. Microcomputer technology should be explored as one of the most promising options. The regional commissions should assist national statistical offices in determining the appropriate statistical infrastructure and identifying personnel to be trained

in statistical computing. Technical co-operation projects in statistical data processing should include training as an integral part of the project. Emphasis should be on technology transfer by international experts through training counterparts. All statistical training centres receiving multilateral or bilateral support, directly or indirectly, should be encouraged to include data processing and the use of specific statistical software packages as integral parts of their curricula. Regional co-operation among national statistical offices should be encouraged so that they may share experiences in their fields of interest and common problems. In this co-operation the regional commissions should play a leading role. Technical co-operation among developing countries in statistical data processing should continue to receive support from international agencies. Regional workshops on statistical data processing and data bases should be held every two years to review the progress made and to suggest ways of improving statistical data processing in member countries. Data-processing training institutes or other suitable means of providing statistical data-processing training should be promoted at the regional level. The United Nations should consider compiling a handbook of statistical data processing and advances in computer technology.

V. POINTS FOR DISCUSSION

97. The Commission may wish to:

(a) To comment on the technical co-operation programme in statistics, including its scope and composition;

(b) To review emerging issues in statistical training and statistical data processing;

(c) To discuss the format and adequacy of the present report and scope of future reports on this subject.

Notes

1/ Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 148 (c).

Annex

UNITED NATIONS SYSTEM EXPENDITURE ON TECHNICAL CO-OPERATION IN
 STATISTICS, 1985-1988

Table A.1. United Nations system expenditure by organization
 and main form of activity

(Thousands of US dollars)

Organization Year	Total	Personnel <u>a/</u>	Field staff	Training	Equipment	Miscellaneous
Total						
1985	38 372	9 232	12 765	5 164	9 750	1 461
1986	35 184	8 271	13 925	4 269	6 763	1 956
1987	38 846	8 539	16 674	4 870	6 697	2 066
1988 <u>b/</u>	41 570	8 932	18 699	5 625	5 790	2 524
United Nations <u>c/</u>						
1985	23 125	4 305	6 826	3 480	7 786	728
1986	19 932	4 309	7 011	2 637	4 962	1 013
1987	21 445	4 482	8 137	3 238	4 499	1 089
1988 <u>b/</u>	24 096	5 196	10 186	3 997	3 170	1 547
ILO						
1985	331	277	29	25	0	0
1986	539	373	125	30	11	0
1987	670	380	255	34	1	0
1988 <u>b/</u>	723	339	360	24	0	0
FAO						
1985	4 524	696	2 186	517	668	457
1986	5 538	692	3 309	569	532	436
1987	7 088	681	4 470	670	797	470
1988 <u>b/</u>	7 741	640	4 624	700	1 257	520
UNESCO						
1985	1 016	351	366	275	16	8
1986	888	291	360	226	4	7
1987	630	314	105	182	24	5
1988 <u>b/</u>	801	315	193	234	53	6
WHO						
1985	9 376	3 603	3 358	867	1 280	268
1986	8 287	2 606	3 120	807	1 254	500
1987	9 013	2 682	3 707	746	1 376	502
1988 <u>b/</u>	8 209	2 442	3 336	670	1 310	451

a/ Headquarters of United Nations, regional commission, specialized agencies.

b/ Estimate based on 1988 budget at the beginning of the year.

c/ DTCD and regional commissions combined.

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Table A.2. United Nations system expenditure by organization and subject area

(Thousands of US dollars)

Organization and subject area	1985	1986	1987	1988 <u>a/</u>
United Nations <u>b/</u>				
Multisector statistics <u>c/</u>	2 360	2 367	2 258	2 295
National accounts, finance, price and other economic statistics	3 833	3 257	3 703	2 901
Demographic and social statistics, sampling and surveys	8 828	8 498	9 753	12 098
Data processing	5 801	3 615	3 738	4 052
Other <u>d/</u>	166	194	196	215
FAO				
Food and agriculture statistics	4 080	5 078	6 630	7 320
Fisheries statistics	444	460	458	421
UNESCO <u>b/</u>				
Education statistics	817	655	464	621
Statistics on science and technology	48	45	32	26
Statistics on culture and communication	22	28	35	23
WHO				
Health situation and trend assessment	9 376	8 287	9 013	8 209

a/ Estimate based on 1988 budget data.

b/ Excluding United Nations Headquarters, regional and interregional advisers, technical guidance and programme formulation, and UNESCO technical guidance and programme formulation.

c/ Including training and household survey.

d/ Including energy agricultural and industrial statistics.

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Table A.3. United Nations system expenditure by region
 (Thousands of US dollars)

Organization and region	1985	1986	1987	1988 a/
United Nations Headquarters				
Total b/	18 946	15 519	17 162	18 558
Africa	4 912	5 640	6 619	6 272
Asia	5 310	3 126	3 125	4 890
Middle East, Europe and Mediterranean	6 480	4 794	5 516	4 880
Americas	2 244	1 959	1 902	2 516
Regional commissions				
Total	3 769	4 401	4 087	5 220
ECA	1 177	1 170	1 166	1 520
ESCAP	748	809	760	887
ESCWA	1 727	1 989	1 601	2 216
ECLAC	117	433	560	597
ILO				
Total b/	270	547	650	540
Africa	90	360	360	360
Asia and the Pacific	90	90	90	90
Western Asia	--	7	20	--
Latin America and the Caribbean	90	90	180	90
FAO				
Total b/	4 524	5 538	7 088	7 741
Africa	2 766	3 706	4 875	5 146
Asia and the Pacific	1 177	1 030	1 682	1 857
Western Asia	186	233	217	402
Latin America and the Caribbean	395	569	314	336
UNESCO				
Total b/	881	723	510	621
Africa	447	284	300	260
Asia and the Pacific	124	146	143	163
Western Asia	220	259	39	73
Latin America and the Caribbean	90	34	28	125
WHO				
Total b/	9 376	8 287	9 013	8 209
Africa	1 875	1 906	2 073	1 888
Asia and the Pacific	1 875	1 657	1 802	1 642
Western Asia	1 500	1 078	1 172	1 067
Latin America and the Caribbean	4 126	3 646	3 966	3 612

Note: Regional groupings may vary from organization to organization.

a/ Estimate based on 1988 budget data.

b/ Excluding expenditures for interregional projects and other expenditures that cannot be allocated to a specific country or region.
