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REPORT OF THE WORKING GROUP ON INDUSTRIAL STATISTICS

(Santiago, 3 to 14 August 1970)

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/INTRODUCTION

INTRODUCTION

1. The Working Group on Industrial Statistics, organized jointly by the Economic Commission for Latin America (ECLA), and the Headquarters Statistical Office and Office of Technical Co-operation, met at Santiago, Chile, from 3 to 14 August 1970.

2. The Working Group was convened for two main purposes: first, to examine the proposals presented by the Statistical Office of the United Nations in connexion with the World Programme of Industrial Statistics for 1973, which will be submitted for consideration at the next session of the Statistical Commission, and, secondly, to analyse the situation of industrial statistics in the Latin American countries and measures for their improvement.

3. The intention was also to review the obstacles which had prevented compliance with the industrial statistics programmes that had been proposed by the countries of the region at the Latin American Seminar on Industrial Statistics held at Quito at the end of 1966.

4. Both the proposals for the World Programme and the urgent need to improve the coverage, quality, timeliness and comparability of industrial statistics in the Latin American countries are closely linked with the necessity of solving information problems as soon as possible in order to satisfy the demands of individual countries belonging to economic integration movements, and of the basic role which industrial statistics is expected to play in successful economic and social development planning within the context of the Second United Nations Development Decade.

5. This report is divided into two parts. Part I describes the organization and attendance of the Working Group and includes the agenda of the meeting. Part II presents an account of proceedings and the conclusions reached by the participants.

/Part I

Part I

ORGANIZATION OF THE WORKING GROUP

A. ATTENDANCE AND ORGANIZATION OF WORK

Opening and closing meetings

6. The opening meeting of the Working Group on Industrial Statistics was held on 3 August 1970 in the conference room of the Southern European Observatory, Santiago, Chile. Statements were made by Mr. Carlos Quintana, Executive Secretary of ECLA, who welcomed the participants, and by Mr. César Molestina, Acting Chief, Industrial Statistics Section, Statistical Office of the United Nations, who explained the objectives of the World Programme of Industrial Statistics for 1973 and the content of the documents presented.

7. In his statement, Mr. Quintana underlined ECLA's interest in the meeting and stressed the need to seek new ways of solving the problems presented by industrial statistics, which were an essential tool of economic development planning in the Latin American countries.

8. At the closing meeting, held on 14 August, statements were made by Mr. Pedro Muñoz (Colombia) on behalf of the participants, and Mr. Gustaaf Loeb, Director, Statistical Division of ECLA, who expressed satisfaction at the work accomplished during the meetings of the Working Group and thanked the participants for their co-operation.

Attendance

9. Seventeen experts from the following countries attended the meeting of the Working Group: Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela.[1/]

1/ A complete list of participants will be found in annex I.

10. Four observers were sent by the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), the Inter-American Statistical Institute (IASI) and the Latin American Institute for Economic and Social Planning (ILPES).

Election of officers

11. Mr. Javier Bonilla G. (Mexico) was elected Chairman, and Mr. Jaime Robles G. (Peru) was elected Rapporteur.

Secretariat

12. The secretariat was represented by Mr. Gustaaf Loeb, Director of ECLA's Statistical Division; Mr. César. A. Molestina, Acting Chief, Industrial Statistics Section, Statistical Office of the United Nations; and Mr. Gonzalo García, Chief, Industrial Statistics Section, Statistical Division, ECLA.

B. AGENDA

13. At its first meeting the Working Group adopted the following agenda:

1. State of industrial statistics in the Latin American countries
2. Some considerations on industrial statistics in Latin America
3. General objectives of the World Programme of Industrial Statistics for 1973
4. Organization and conduct of industrial censuses
5. List of products and materials
6. Other business

/Part II

Part II

ACCOUNT OF PROCEEDINGS AND CONCLUSIONS

A. STATE OF STATISTICS IN LATIN AMERICA

14. The review of the situation with regard to industrial statistics in the Latin American countries was based on documents prepared by the participants and supplementary statements made during the course of the meeting. Therefore, only the situation of the countries represented at the meeting was examined.

15. During the discussion of this topic, the Working Group noted that no significant changes had taken place in the situation with regard to industrial statistics that might cause the views presented at the Seminar on Industrial Statistics held at Quito in 1966 to alter radically.

16. In discussing the industrial censuses conducted in the various countries, the participants stressed the points they considered most important. It was noted that the form used in both industrial censuses and periodical censuses presented no substantial difference between one country and another and was in accord with internationally accepted recommendations. In certain cases a distinction was made, on two forms, between two strata of persons engaged in manufacturing establishments. The censuses in most countries covered mining, construction and electricity as well as manufacturing.

17. With regard to the use of census information, the participants stated that it had served as a basis for the preparation not only of continuous indicators but also of over-all economic and social development plans and, in particular, industrial expansion programmes. In addition, the information on value added had been useful in determining the degree of accuracy and in checking the estimates of the industrial product. The weighting for the preparation of industrial production indexes was obtained from industrial censuses. Another important point was that the census provided the frame of reference for selecting the establishments to be included in the annual inquiries.

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18. In most countries an industrial inquiry was carried out annually, and in some every three or six months. The annual inquiries provided the indicators used to examine the evolution of industry. The quarterly and six-monthly inquiries, which had a smaller coverage, showed the trends followed by specific indicators.

19. Although statistical legislation existed in most countries, it was generally not fully complied with. In addition, the pace at which the socio-economic situation was changing meant an increasing need for more, better, and more up-to-date information, but the institutional machinery was not keeping pace with that need. Legal instruments would have to be brought into line with the new concepts of economic analysis, so as to obtain the up-to-date information required by national planning bodies.

20. It was reported that the national authorities had prepared projects - some of which were in process of execution - for training statistical personnel, especially at the intermediate level. At the moment, training was provided within the statistical agencies themselves. In that respect, the participants agreed that regional agencies should hold statistical training courses dealing mainly with practical problems.

B. SOME CONSIDERATIONS ON THE NEED TO IMPROVE BASIC INDUSTRIAL STATISTICS IN LATIN AMERICA

21. The discussion of this item was based on the document entitled "Some considerations on industrial statistics in Latin America" (ST/ECLA/Conf.39/L.3) and on the notes on countries prepared by the participants.

22. It was pointed out that the countries of the region should have timely, reliable and suitable information available on the basis of which to formulate an industrial development policy in line with the targets and objectives of the Second United Nations Development Decade, and to establish national programmes designed to contribute the fund of Latin American experience in industrial statistics to the results of the World Programme of Industrial Statistics for 1973.

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23. While decision-making and economic analysis instruments in the various countries had developed along lines compatible with the most up-to-date requirements, statistical instruments and the quality and timeliness of the data in support of industrial policy failed to satisfy the requirements of the industrial sector, which represented the most dynamic factor of economic and social development.

24. It was recognized that productive processes resulting from the introduction of new techniques had evolved so rapidly that they imposed a set of hitherto unexplored conditions in respect of statistical techniques, means of compiling more reliable data, and new forms of information which should be incorporated in the national systems of statistics if the role they played was to be of any significance. Hence, statistical activity should be developed along parallel lines and in conjunction with the research required for the analysis of the industrial process. That implied a close relationship with the technical and economic concepts which it would be necessary to include in future research, the carrying out of censuses and surveys, and other topics which had hitherto been carried out only partially.

25. The industrial development aims and objectives laid down in the national plans during the 1960s were rarely achieved. Apart from economic considerations and the lack of adequate machinery, it was conceivable that, if the initial information had been closer to the facts, there would have been a more realistic chance of implementing new industrial policies. Consequently, the Working Group considered that an attempt should be made to fulfil the basic requirements for the provision of realistic and reliable information so as to ensure that an industrial development strategy would not have to be based purely on estimates.

26. It was felt that the rapid technological changes that were taking place in industry constituted a special characteristic of the sector, which should be taken into account in devising the statistical instrument for implementing industrial economic policy measures. That applied not only to the macroeconomic scale but also to activities at a lower level of aggregation whose requirements were not usually known, at any rate systematically in the majority of the Latin American countries. The participants described the experience of their own countries in that respect.

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27. In discussing artisan-type industry from the standpoint of industrial planning, it was agreed that in order to establish the actual objectives involved in improving levels of living the countries should have a good knowledge of the structure of artisan-type industry and its importance and role in their economic and social development, particularly in the case of countries where consumption had depended to a great extent on artisan products. Artisan-type activities were particularly important for large sectors of the rural population and of the urban periphery. If they were not taken into account or their importance in total manufactured goods were underestimated, the structural basis for establishing future plans or targets would be no longer valid.

28. Because of its special characteristics, the definition of artisan-type industry should be based on other criteria as well as size of enterprise. Thus far most countries, in establishing their development plans, had considered an artisan-type productive unit to be one where up to four persons were engaged, although admittedly there were establishments of that size which could be classified as factory industry, or larger units which could be called artisan-type industries. The Latin American countries, with the experience gained during the 1960s and their action in formulating industrial development plans, which also covered artisan-type industry, should contribute their experience to the formulation of the World Programme of Industrial Statistics for 1973.

29. It was recognized that the peculiar characteristics of the Latin American countries and the differing stages of economic development they had reached determined the type of information they required, which could not always be obtained through the traditional statistical systems, nor did it serve the same purposes as in the developed countries.

30. The Working Group considered it advisable for the various countries to review and analyse some issues concerning industrial statistics which to present at the conference on planning and availability of statistics scheduled for the second half of 1971. Undoubtedly, the confrontation of ideas between agencies issuing statistics and those using them could be expected to yield highly favourable results of a conceptual nature. It would also be possible to determine on a co-ordinated basis the research priorities deriving from planning requirements and industrial policy measures.

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31. It was considered important to introduce new industrial topics and concepts on which there was no information available in most countries. Without going into detail about methods of research, it was considered useful to examine such subjects as industrial financing, tax aspects of enterprises and their share in over-all taxation, industrial capital and the structure and composition of prices of industrial goods, and industrial productivity indicators.

32. It was suggested that in attempts to improve the statistical system, account should be taken of the methods used in each country. The elements of analysis would have to be so marshalled as to provide a sufficiently sound statistical basis to apply to more complex econometric models. Industrial situations could therefore be quantified without recourse to hypotheses, which were often based on subjective appraisals, or to the application of indirect indicators which implied the conditioned behaviour of other variables.

33. Industrial statistics, besides being an instrument used in the evaluation and planning of industry, should include the information required at the national level for an objective evaluation of the position of industry in each country vis-à-vis the external sector. In that connexion, several participants stressed the need to quantify such variables as external financing and debt service payments, the cost of introducing foreign techniques, payments for licenses, and imported inputs. It should be borne in mind that certain purchases from establishments within the country whose inputs were imported often appeared as domestic inputs but were merely goods that had undergone a primary stage of processing. Payments for advisory services and agreements with industrialized countries should also be quantified.

34. It was felt that financial information at the sectoral and enterprise level was particularly significant in considering prospects and programmes for the promotion of exports of manufactures. Any mechanisms in support of that policy which was currently being adopted by governments should have the necessary quantitative backing, since the opening up of new markets raised a number of questions which it had not been possible to answer thus far. It was also essential to have information on prices of

/manufactures and

manufactures and on production costs, in order to analyse the domestic market potential and determine the possibility of expanding certain export production lines on the basis of improvements in the efficiency of productive processes.

35. The Working Group underlined the fact that, since the more efficient use of capital was one of the basic factors of industrial development in the Latin American countries, it would have to be quantified with due regard to available sources of information and the introduction of new techniques and equipment. A number of participants said there was no reliable data available on the total volume of capital accumulated by the industrial sector, or on capital by type of assets. In that respect, special emphasis was placed on the problem of assessing the actual value of the capital, since for various reasons the book value was often quite unrealistic.

36. In connexion with personnel training and in order to give due importance to industrial statistics at the regional level, it was suggested that the programmes of regional statistical and economic training centres should cover statistical concepts and methods related to industrial policy. There was consensus that governmental statistical agencies in the various countries should consider ways of making better use of personnel trained abroad, so that on returning to their own countries they should not work in activities that are completely unrelated to statistics.

37. The participants were of the opinion that the ECLA secretariat, with the co-operation of the Inter-American Statistical Institute, should assume responsibility for co-ordinating the dissemination of experience in the methodological sphere, and explore the possibility of obtaining technical assistance from Latin American professionals with a practical knowledge of specific aspects of statistical research. The co-ordinating role of ECLA and IASI could well be the first step towards the establishment of a regional data bank.

38. Stress was laid on the need for the Latin American Governments to initiate action to ensure that the external financing intended for the execution of statistical research programmes was channelled into those which were considered of basic priority in each country. Acceptance of external financial aid was often conditioned by the execution of pre-established programmes. Because it was easy to obtain financial and material resources for certain research projects, the situations studied were of no intrinsic

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interest in relation to the magnitude of the countries' fundamental problems. At the same time, the normally scarce domestic resources were being absorbed by such research, to which the governments ascribed a priority that was at variance with genuine needs.

39. In view of the fact that modern methods of calculation by means of electronic computers had been widely applied in the last few years because of the versatile nature of such equipment and the improvements in processing methods and programmes, the Working Group considered that the Latin American countries should endeavour to introduce the electronic computer for data processing. Obviously, the priority of such action would be second to that of improving and expanding the basic information. Steps should also be taken to make better use of existing equipment wherever there was overlapping of the capacity available in various research units and centres.

40. In respect of international co-operation, it was considered that the ECLA secretariat, the Statistical Office of the United Nations and the Inter-American Statistical Institute should tackle the task of preparing a list of topics deserving priority in the field of statistical research, on the scale of basic priorities of the widest national interest.

41. It was felt that industrial statistics in the Latin American countries should develop at the same pace as the industrial sector's demand for information. Moreover, the various countries should increase the existing supply of information as far as the number of variables were concerned and perfect their measurement instruments. In the light of those considerations, it was recommended that ECLA encourage the member Governments to set up working groups to prepare programmes for the collection of industrial statistics, which would cover:

(a) New variables not previously dealt with;

(b) Development of original methods of collection for each of the data required;

(c) Continuing revision and improvement of data; and

(d) Integration of national industrial programmes of statistics with the country's other statistical programmes.

C. GENERAL STATISTICAL OBJECTIVES OF THE 1973 WORLD PROGRAMME OF INDUSTRIAL STATISTICS

42. The Working Group based its discussions on this topic on the "Draft Recommendations for the 1973 World Programme of Industrial Statistics. Part I. General Statistical Objectives" (E/CN.3/404/Rev.1) prepared by the United Nations Statistical Office with a view to defining the principal statistical objectives of the World Programme and outlining the character and content of the national inquiries to be carried out under the Programme.

43. The Group's discussions were designed to examine the proposals submitted by the United Nations and compare them with national experience, and to provide participants with an opportunity for comments which would be submitted to the United Nations Statistical Commission at its forthcoming session.

44. At the outset of the discussion, the Group emphasized the need to consider the programme proposed by the United Nations as a by-product of the national programmes planned for 1973 or thereabouts.

45. With this in mind, it was noted that the Group should take account in its discussions of the differences between national information requirements and those of the proposed World Programme.

46. The Working Group agreed, however, that the proposed inquiries under the World Programme would have to be considered an integral part of national industrial inquiries and that in many countries there would be no need to make substantial changes in the regular programmes of industrial inquiries carried out annually or more frequently that would take place around 1973.

47. The Working Group considered the proposals in the Programme adequate, as regards the scope of inquiries, i.e. all establishments within the territorial boundaries of the country engaged primarily in mining, manufacturing and the production and distribution of electricity, gas and water. It noted, however, that some countries would have to find a way of including activities that did not correspond to major divisions, 2,3 and 4 of ISIC [2/] but were of some economic importance and closely

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2/ International Standard Industrial Classification of All Economic Activities (Statistical Papers, Series M, N° 4, Rev. 2). United Nations publication, Sales N°: E.68.XVII.8.

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related to manufacturing activities, for example motor-vehicle repairing activities. In this connexion, it was stated that units engaged in such activities could be included in the inquiry but that the results would be presented separately, so as not to affect over-all comparability.

48. On the question of the recommended statistical unit, the participants unanimously agreed that the establishment was the most suitable statistical unit for industrial inquiries, although, admittedly, in some cases the local unit or the kind-of-activity unit would have to be used, when there was no restriction in respect of geographical area, as an alternative and first approximation to the establishment. The Group considered practical ways of dealing with units engaged in ancillary activities and concluded that international recommendations on the subject were still adequate. In its examination of the experience of some participants, the Working Group agreed that for certain inquiries, especially those designed to obtain financial information from industrial units, the enterprise offered definite advantages over the establishment as a statistical unit.

49. Discussions on the coverage of the inquiries to be carried out under the World Programme focused on the practical possibilities of including the whole universe of establishments, and in particular on the difficulties of including small units, artisan-type industry and home industry. While it was agreed in principle that complete coverage should be the goal, i.e., coverage of all establishments, it was recognized that it would be necessary to make use of special inquiries, different from the general inquiry although linked to it, to secure information on such units. In this connexion, particular mention was made of inquiries using the household as a statistical unit. It was admitted, however, that in order to fulfil the requirements of the World Programme, it was possible that the information covering units below the cut-off point of five or more persons engaged would contain a certain amount of estimation. In this respect, participants implicitly accepted in their discussions the two levels of coverage proposed in the World Programme, namely full coverage and coverage extending to all establishments engaging five or more persons.

50. With respect to the industrial classification to be used, all participants - with the exception of one who stated that the question of

/classification was

classification was currently being discussed in his country and that as yet no decison had been reached - stated that measures were currently being taken in their countries to adopt the new version of ISIC and that, if not before, it would be used for the 1973 inquiries. Another participant stated that the results of the most recent industrial inquiry in his country, undertaken in 1967, were being processed using the new ISIC.

51. Another of the problems discussed in relation to classification was the need for confidential treatment of data when publishing results in a very detailed classification where the number of establishments in a particular group was not sufficient to preclude disclosure. Although this point was considered under another item, when a number of alternatives were suggested, participants recognized that as a general rule groups would have to be combined for publication purposes.

52. In its discussions of the content of the Programme, the Working Group agreed to consider sections 1 to 8 of document E/CN.3/404/Rev.1 first, and then to go on to section 0 "Summary of activity" because of the difference in coverage.

53. During discussions on section "Employment and earnings", participants expressed their agreement with the proposal contained in the Programme. Two of the items, however, provoked a more detailed examination of the problems involved and country experience. While recognizing the usefulness of the item "man-hours worked by operatives", which could be used for a number of purposes, participants agreed that it was a difficult concept to use in practice, mainly owing to the fact that informants lacked suitable records. It was stated that a large proportion of establishments confined themselves to providing rather rough estimates which had to be revised and adjusted in detail in the Statistical Office. In this connexion, it was also stated that it was necessary to make clear in the instructions to informants that the information required was the number of hours actually worked in productive and ancillary activities and not the total hours paid or the total hours spent by operatives in the establishment. The other item which elicited a lengthy discussion was "supplements to wages and salaries of employees". Some participants

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stated that their countries did not have sufficient experience in collecting information on this item and that in some cases thought might be given to using social security institutions as a source of information. There was agreement, however, that information on this point was becoming increasingly important in measuring the cost of labour and that it should be included in the inquiries under the 1973 Programme.

54. With respect to section 2 "Gross output, its composition and related items", the secretariat observed that some terminology changes had been made in the document to bring it into line with the wording of the new System of National Accounts of the United Nations.

55. Participants devoted most of their attention to the items relating to indirect taxes and subsidies received. It was stated that compiling information on these two items presented very serious difficulties and that these difficulties had been recognized by the International Recommendations which did not recommend their compilation in countries which were developing their industrial statistics. Participants were in agreement, however, that the two items should be maintained in the Programme because of the need to improve the data on production required for determining the value added by industry in approximate basic values.

56. The Working Group considered that the proposals contained in section 3 "Input and related items" were generally acceptable. Some participants suggested that item 3.1.3 "Contract and commission work" should have two subdivisions: (a) Undertaken by other establishments; and (b) Undertaken by workers in their own homes. This would make it possible to use the value of payments to home-workers as a component of input or as a part of earnings, and would also provide separate data showing the contribution of home workers. Participants agreed that it might be more suitable to express total energy consumed, both fuels and electricity, in terms of kilowatt-hours equivalent, to provide a more readily understandable standard and universal unit of measurement, especially because of the growing importance of electrical energy among sources of power for industrial uses. It was suggested that when the final recommendations

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for the Programme were prepared, some mention should be made of the conversion coefficients to be used to express the energy equivalent of fuels consumed in kilowatt-hours.

57. With respect to section 4 "Measures of valued added", the Working Group agreed that the most difficult problem was obtaining reasonably reliable data on the consumption of fixed capital. It was stated that, even in the countries with well-developed systems of industrial statistics, this item had been given priority 2 in the International Recommendations and that it was not recommended that countries still developing their industrial statistics should try to obtain data on it. Participants agreed that there was a need for a comprehensive study on this item and that the Programme should contain more explicit methodological comments on it. Similarly, some doubt was expressed regarding the collection of significant data on receipts and payments for non-industrial services, although it was recognized that such data was of use for estimating the share of industry in the gross domestic product.

58. Section 5 "Changes in stocks" was approved without lengthy discussion. It was recognized that sufficient experience existed on the item and that it had been included in all the censuses and comprehensive inquiries undertaken in the countries of the region. Mention was made, however, of some problems of valuation, chiefly with regard to stocks of work-in-progress, but there was general agreement that the International Recommendations offered adequate guidance in this respect.

59. Discussion on section 6 "Gross fixed capital formation" was confined to an examination of the problems of and the experience acquired in obtaining data on this item. It was stated that to a large extent the quality of data was dependent on the reliability of the accounting records available in establishments, and it was suggested that special inquiries might be undertaken with a view to improving their reliability, chiefly as regards methods of valuation of new fixed assets.

60. The proposals in sections 7 and 8 "Production of selected individual products" and "Consumption of selected individual materials" were

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approved as contained in document E/CN.3/404/Rev.1. They were discussed in detail in connexion with the item covering lists of products and materials.

61. The Working Group then turned its attention to section O "Summary of activity". Having in mind that the items in the section, at least as regards establishments with five or more persons engaged, were simply a summary of the sections discussed earlier, it approved the proposals without discussion. It noted, however, that establishments with less than five persons engaged, which had to be included in order to obtain the complete coverage recommended, posed certain difficulties. It was agreed that, to comply with the Programme, a special inquiry would have to be undertaken or, at least, some estimates would have to be included, and that the United Nations should give further consideration to this point when the final recommendations were drafted.

62. In discussing the items in general, some participants indicated their surprise at the fact that there was no section covering the capacity of electric power generating equipment, which could be a useful indicator of the level of mechanization in industry. In this connexion, the Working Group agreed to suggest that the United Nations Statistical Commission should consider the advisability of including this indicator in the final recommendations for the Programme in countries where this would be feasible for establishments with five or more persons engaged.

63. Another item raised during the discussion for inclusion in the Programme was the cost of hiring production equipment, since the hiring of equipment was becoming increasingly common in some branches of industrial activity in Latin America. In this respect, too, the Group agreed to bring the matter to the attention of the Statistical Commission.

/D. ORGANIZATION

D. ORGANIZATION AND CONDUCT OF INDUSTRIAL CENSUSES

64. Discussion of this subject was based on the document "Draft recommendations for the World Programme of Industrial Statistics. Part III Organization and Conduct of Industrial Censuses (E/CN.3/406), prepared by the Statistical Office of the United Nations.

65. The working document was intended as a practical methodological guide to the planning and management of industrial censuses with primary emphasis on the problems faced by countries at an early stage of statistical development. It was designed as a preliminary draft of what could become a Manual of industrial censuses, as recommended by the United Nations Statistical Commission, and could to a certain extent be regarded as a revised and up-dated version of certain parts of the United Nations Statistical Office publication Industrial Censuses and Related Enquiries (Sales No 1953, XVII. 11.)

66. Some of the participants signified their approval of the document which they felt provided a clear explanation in simple terms of the main aspects of planning and conducting censuses. It was thought, however, that certain chapters would be improved by a more detailed description of techniques employed by statistically more advanced countries that could be adopted by developing countries without any great difficulty.

67. It was pointed out that, in addition to the steps taken by countries to improve the co-operation of the respondents as a basic condition for the success of an industrial census, international agencies and the United Nations in particular, should, for the purposes of the 1973 Programme, initiate an active promotional campaign directed at Governments and national institutions so that national statistical offices participating in the Programme could obtain the necessary support and resources.

68. The participants urged that the final recommendations for the 1973 World Programme stress the need to strengthen the integrated industrial statistics programme in view of the fact that, though an important part of the system, the census cannot solve the problems deriving from the shortage of data on its own.

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69. Another point that was discussed at some length was the need for an Industrial Directory. In describing their own experience, all the participants stated that the availability of a register or directory of statistical units - at least those above a specific size - was perhaps the most important aspect of conducting industrial censuses and enquiries. Some participants described the efforts being made in their countries to prepare, with the use of computers, a national register of units dedicated to some kind of economic activity. It was generally felt that the Manual should contain more details about the experience of countries that had solved this problem and that of keeping it up to date.

70. The participants agreed that the Manual's description of the use of sampling techniques in industrial enquiries and censuses should be completed and enlarged. Though some commented that their countries already had some experience in this field, they all agreed that it would be useful to have a more accurate guide showing how sampling could be used to solve the coverage problem of artisan-type and small establishments and thus enable the frequently inadequate resources at the disposal of national statistical offices to be allocated more efficiently.

71. As for the availability of trained personnel for the statistical offices, some participants pointed out that the problem had been at least partly solved by the maintenance on the staff of a permanent nucleus of census experts. It was of course recognized that the problem varied according to each country's public administration structure and the salary level of statistical staff.

72. With respect to the chapter on advance planning for an industrial census, a number of participants suggested that the Manual would be improved by the inclusion of certain methodological indications regarding the application of the PERT or CPM (critical path method) system as a valuable aid to solving census planning problems and preventing bottlenecks at any stage.

73. One aspect that was widely discussed by the Working Group concerned the confidential treatment of the information obtained. Part of the Group agreed that the criteria that had been applied in the past needed revising and that there would have to be some legislative changes to the effect that confidential treatment be restricted only to data that were for general publication. It was said to be undesirable, and apparently unworkable, to attempt to prevent national planning and economic policy agencies from using statistical data

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for their own specific ends. Recognizing that this was a very delicate subject that could affect the degree of collaboration of the respondents, participants suggested that national offices should first exhaust every means at their disposal to obtain the respondents' own authorization to use information for programming and policy purposes in the industrial sector and provide an assurance that no individual data would be published or divulged.

74. A lengthy discussion was held on the use of mail collection to obtain data for the industrial censuses; the participants' experience pointed to the conclusion that this would not only severely restrict the quality of the service but also provided an easy way out for reluctant respondents who could claim not to have received the relevant questionnaire. By and large, the feeling of the Group was that the use of postal services should be limited strictly to cases where enumerators were not going to be utilized and where any failure to reply could be checked by field staff.

75. As regards the operations preceding the publication of the results, one of the participants stated that it might be advisable to suggest to the United Nations Statistical Commission that it examines the possibility of enlarging the section of the Manual which gave a description of the tabulating equipment; he mentioned that electronic data-processing machines were currently available and even being used by some statistical offices and that their experiences would greatly assist offices that were intending to change their own equipment.

76. As regards the data-processing stages - which one of the participants felt deserved fuller treatment in the Manual - reference was made to the use of quality control techniques instead of the complete verification of punch cards and of another stage in data-processing. The Working Group agreed that this point needed to be looked into more deeply so as to facilitate the use of such techniques by the national offices responsible for conducting industrial censuses.

77. Summarizing its discussion, the Group agreed that the working document provided an excellent basis for the final version of the Manual and that the latter, when available, would be a valuable working aid for industrial statistics offices.

/E. LIST

E. LIST OF PRODUCTS AND MATERIALS

78. This subject was discussed by the Working Group on the basis of documents Draft Recommendations for the 1973 World Programme of Industrial Statistics. Part II. List of Products and Materials (E/CN.3/405), prepared by the Statistical Office of the United Nations, and Proyecto de Lista Uniforme de Productos Minerales y Manufacturados (ST/ECLA/Conf.39/L.2), prepared by the Statistical Division of ECLA.

79. It was pointed out at the outset that, although each adopted a different approach, both working documents sought to provide a guide for developing national lists. The first document endeavoured to show how the international comparability of the data submitted by each country in connexion with the 1973 World Programme could be improved and was largely based on the list currently used by the United Nations Statistical Office in its questionnaire on Industrial Commodity Production Statistics. The list submitted by ECLA was based on an earlier list prepared by a working group made up of experts from seven countries in the region which met in 1963. Its main purpose was to help countries prepare national lists for use in conducting industrial censuses and, moreover, to assist in the application of the new ISIC, at least until such time as the corresponding numerical and alphabetical indexes were published in Spanish.

80. The Working Group discussed the general principles for preparing lists of products and materials, the criteria to be applied in selecting products and the amount of detail that was feasible in practice. It examined the problem of homogeneity of products, cases where it would be advisable to include intermediate products and the question of the representativeness and balanced distribution of commodities in each industrial group.

81. Another point raised by some participants had to do with the meaningful quantification of the products and the need in certain cases - particularly for products included in the machinery and equipment group - to use a combination of units that would make measurement possible. It was felt that, while some progress had been made along these lines, more needed to be known at the experimental level.

/82. Some

82. Some participants mentioned the need, in the final version of the recommendations for the World Programme, to correct certain mistakes, apparently in translation, that had slipped into the working document.

83. The Working Group indicated that it would be convenient for the lists of products and materials to be published in future in accordance with SITC sub-groups and in alphabetical order, so as to make them easier to use.

84. The Group agreed that this work should continue on the ECLA list, which should be completed and enlarged, especially as regards the methodological notes, and as far as possible, include definitions of products. For this purpose, those participants that had not already done so offered to send the Secretariat their observations and comments in the ensuing months so that the final version could be ready by the end of 1970.

85. In the course of the discussion, the members of the Working Group recognized that the preparation of lists of products and materials was a full-time operation and that a permanent exchange of information was needed on the experience countries had acquired in applying them, so that new products could be incorporated and definitions improved. At the same time, the units of measurement would in many cases have to be adapted to the practice prevailing in the various countries.

86. The Working Group briefly examined and approved the individual products listed in the documents submitted and approved, noting however that experience alone would determine their eventual application.

F. MISCELLANEOUS

87. The representative of the United Nations Statistical Office informed the Working Group of the various enquiries being conducted by the Industrial Statistics Section at United Nations headquarters and described the aims, data-collection methods and the publications that contained the results of the enquiries on general industrial statistics, production of selected articles and production and employment indexes. He thanked the

/participants for

participants for their collaboration and expressed the hope that Latin American countries would in future be more widely represented in publications giving the results of these enquiries.

88. As regards the requests of international organizations for statistical data, the participants stressed the need to continue efforts to improve co-ordination between agencies and to relieve some of the burden carried by national offices which had to answer questionnaires coming from various agencies that sometimes covered identical or very similar statistical fields. A possible solution, it was suggested, might be for the national offices to send computer tapes or rolls outputs to a single agency which could then process the data and share the information with the other interested organizations.

89. The observer from the Inter-American Statistical Institute said that the IASI wished to collaborate fully in improving co-ordination among international organizations requesting statistical information from the countries of the region.

90. An exchange of views was held regarding technical assistance provided by international organizations in connexion with industrial statistics. The participants stressed that, apart from their professional training, experts should, before embarking upon their mission, acquire some knowledge of the conditions of the country and a grounding in the language they would be using.

/ANNEX I

ANNEX I

LIST OF PARTICIPANTS

Argentina:	Leonard Mertel, Chief, Programming Department, National Institute of Statistics and Censuses, Buenos Aires
Brazil:	Lauro Sodré Viveiros de Castro, Director, Commercial and Industrial Statistics Division, Ministry of Industry and Commerce, Rio de Janeiro
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Ecuador:	Francisco Páez, Chief, Industrial Statistics, Planning Office Quito
Guatemala:	Luis Efraín Chief, Department of Special Studies, Statistical Office, Guatemala City
Mexico:	Javier Bonilla G., Deputy Director of Statistics, Statistical Office, Mexico City
Panama:	Diana de Olarte, Chief, Economic Census Section Statistics and Census Office Panama
Paraguay:	José T. Gonzalez Segovia, Chief, Industrial Statistics Sector, Technical Planning Office, Asunción
Peru:	Jaime Robles Guillén, Chief, Statistics and Computations Office, Ministry of Industry and Commerce, Lima
Trinidad and Tobago:	Leo J. Pujidas, Senior Statistician, Statistical Office Port-of-Spain

/Uruguay:

Uruguay:	Mario F. Lombardi R., Technical Assistance Co-ordinator, Statistics and Census Montevideo
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Venezuela:	Nicolás Ramos Oropeza, Chief, Economics Division Statistics and Census Office Caracas
SIECA:	José Guillén, Chief, Statistical Section, Permanent Secretariat of the General Treaty on Central American Economic Integration, Guatemala City
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ILPES:	Retórico Fretes, Industrial Planning Division, Latin American Institute for Economic and Social Planning, Santiago
	Gerard Fichet, Research Division - Economic Planning, Latin American Institute for Economic and Social Planning, Santiago

ANNEX II

LIST OF DOCUMENTS

A. Working Documents

E/CN.3/404/Rev.1	Draft Recommendations for the 1973 World Programme of Industrial Statistics.
	Part I. General Statistical Objectives.
E/CN.3/405	Draft Recommendations for the 1973 World Programme of Industrial Statistics.
	Part II. List of Products and Materials.
E/CN.3/406	Draft Recommendations for the 1973 World Programme of Industrial Statistics.
	Part III. Organization and Conduct of Industrial Censuses.
ST/ECLA/Conf.39/L.1	Provisional agenda.
ST/ECLA/Conf.39/L.2	Proyecto de Lista Uniforme de Productos Mineros y Manufacturados.
ST/ECLA/Conf.39/L.3	A few considerations on industrial statistics in Latin America.

B. Reference Documents

Statistical Paper. Series M, N° 48.

International Recommendations for Industrial Statistics.

Statistical Paper. Series M, N° 4, Rev. 2.

International Standard Classification of all Economic Activities.

América Latina: Principales Indicadores Derivados de los Censos y Encuestas Industriales.