

CONFERENCE OF EUROPEAN STATISTICIANS

ECE Work Session on Statistical Output
for Dissemination to Information Media
(Geneva, Switzerland, 28-30 October 2002)

Topic (b): Methods, Policies and Techniques of Statistical Dissemination

DISSEMINATION OF INTERNATIONAL LABOUR STATISTICS ON INTERNET

Submitted by International Labour Organization¹



<http://laborsta.ilo.org>
Copyright International Labour Organization

¹ Prepared by Patrick Cornu and Sophia Lawrence.

La Diffusion des Statistiques internationales du Travail par le BIT sur Internet

Résumé

Le BIT et son Bureau de statistique diffusent des statistiques du travail pour les Etats membres depuis plus de 80 ans. Cet article décrit les différentes étapes du développement de la dissémination des informations statistiques, par exemple la plus grande disponibilité des extraits de base de données rendue possible par la technologie des dernières années. Le récent site Internet statistique du BIT, créé en 1998 afin de diffuser avec la meilleure technologie les données et les métadonnées significatives, y est présenté au lecteur. Ceci représente une innovation importante dans le domaine de la diffusion des statistiques du travail mise au bénéfice des utilisateurs. L'opinion sur le site et sur les statistiques qui s'y trouvent ainsi que des renseignements sur l'utilisation qu'en font les divers utilisateurs du site BIT est sollicitée pour pouvoir améliorer les développements futurs. En dernière page, les lecteurs sont de ce fait invités à réfléchir aux questions qui s'y trouvent et nous renvoyer leur réponses par courrier électronique à l'adresse: laborsta@ilo.org. Nous les remercions d'avance.

La Diseminación de Estadísticas internacionales del Trabajo por la OIT en el Interne Resumen

La OIT y su Oficina de Estadísticas distribuye estadísticas del trabajo para los Estados Miembros desde hace más de ochenta años. Este artículo presenta las etapas diversas de desarrollo de esta diseminación de informaciones estadísticas, incluyendo la mayor disponibilidad de bases de datos que se debe en gran parte al avance tecnológico de los últimos años. Se presenta también el sitio Internet de la OIT sobre estadísticas del trabajo creado en 1998 para difundir los datos y meta-datos más significativos, utilizando la mejor tecnología. Este sitio es una innovación importante en el área de la diseminación de estadísticas del trabajo. Para poder mejorar el desarrollo de esta diseminación en el futuro, nos interesa conocer su opinión sobre este sitio y sobre las estadísticas incluidas; también nos interesa contar con información acerca del tipo de utilización que hacen los usuarios de este sitio. Es por esto que se invita a los lectores a reflexionar acerca de las preguntas que se hacen en la última pagina del artículo y a enviarnos sus respuestas por correo electrónico a: laborsta@ilo.org. Muchas gracias de antemano.

Introduction

The ILO and its Bureau of Statistics have been disseminating labour market statistics to an international audience on behalf of ILO member States for over 80 years. This article presents in three parts the main components of these long-term activities. Part I is the history of data dissemination which describes the various stages in the development of statistical information dissemination. Part II covers the statistical and methodological information currently available in the Bureau, mentioning the greater electronic availability of data sets made possible in the past few years. Part III introduces the ILO statistical Internet application which has been developed to disseminate data and significant metadata, and represents an important innovation in the area of ILO statistical dissemination. Feedback on the service provided by the web site as well as on the uses made of the labour statistics made available by the ILO is requested in order to facilitate future improvements. Readers are therefore invited on the last page of this article to answer a few questions concerning their impressions and their use of the web site and respond by email to laborsta@ilo.org for which we are very grateful.

PART I: History of data dissemination

Since the early 1920s, an important role of the International Labour Organization in the international arena has been to make available to the widest possible audience the results of national statistical inquiries into the characteristics of their working populations and their conditions of work and life. This “*distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labour*”² started when price statistics and unemployment began to be published in the International Labour Review in 1921 using the technical means of the times. In the years which followed, the Review supplemented its coverage of “labour statistics” by adding employment, and increasingly to include other topics such as statistics on wages and hours of work, and information on industrial disputes and collective agreements. The Review was eventually produced as a “monthly” for the price of 60 cents per issue or on a yearly subscription basis! It could only be obtained from the publishers or from distribution points in Canada, Switzerland, the USA and the UK, but, according to the publication itself “*constitute[d] a unique source of information, since only the Office is in a position to secure all the relevant data.*”³

A next step in the ILO’s fulfilment of its mandate to carry out statistical dissemination was the publication of the *Year Book of Labour Statistics*, starting in the early 1930s. The official statistics presented then covered the “gainfully occupied population”, employment and unemployment, hours of work, wages, cost of living and retail prices, family budgets, international migration, industrial accidents, production and wholesale price indices, and exchange rates. Already at that period, the statistics “*were presented in time-series, in a systematic way with a view to assisting users in their interpretation, especially for international comparisons*”⁴. Contemporary printing and mailing methods ensured distribution of the approximately 200-plus page *Year Book* to users around the world. This impressive publication next became a trilingual (English, French, Spanish) edition and presented the most complete data obtainable “*for some 50 countries in all parts of the world*” . It was truly a major reference work for intellectuals of the day. Today the latest edition includes 194 countries and territories. Over the years, the selection of subjects covered by the *Yearbook* (as it is now known⁵) changed for a number of reasons, some related for example to the altered division of labour between the United Nations family of agencies, to changes in the world of work and official statistics and some intrinsically related to the physical restrictions of paper and the printing press.

Other publications of data joined the *Yearbook* in later years: the *Bulletin of Labour Statistics*, a quarterly update of time-series presented annually, its *Supplements*, and the special edition of the Bulletin presenting the *October Inquiry Results*. The statistical tables in all of them give time-series, the longest being ten years in the *Yearbook* so that the 2000 edition covers the years 1990 to 1999. All of these ILO products have been prepared by the Bureau of Statistics using established practices. The Bureau is committed to this responsibility and is required by the ILO Governing Body as part of its mandate to serve national statistical agencies and to benefit researchers and professional statisticians and the public at large. It has continued to seek to improve upon the dissemination of statistical information, applying the techniques of the times. Thus, as the technical means evolved so have the Bureau’s approach and strategies to information dissemination.

Use of recent information technology

In the early 1980s, newly available information technology enabled the Bureau to begin developing a database system for the storage and management of its collection of statistical information gathered from national statistical agencies. The bulk of the data from 1969 onwards was computerised. The database also contains

² Constitution of the ILO, Article 10 (1).

³ Advertisement for the International Labour Review, in Studies and Reports, Series N (Statistics) No. 25 (Revision of No. 19), Montreal, 1943.

⁴ Idem.

⁵ The change in spelling to one word “*Yearbook*” took place in 1995.

statistics on the total and economically active population derived from population censuses going back as far as 1945. The database on monthly, quarterly, etc. statistics published in the *Bulletin* start in 1976. The computerisation of a vast number of files was initially and primarily to prepare and produce more easily (by photo-composition) the regular statistical publications. The database facility contributed to reducing the time required for processing the data. It also served other significant functions in the Bureau, such as its analytical work, and lent itself to a swifter and more personalized satisfaction of external requests for statistics. As the facilities were built up and became better known, requests from users and their requirements increased in number and intensity, which led to a further evolution of the Bureau's activities as it strived to meet the higher demands.

PART II: Information available in the Bureau

LABORSTA and users of labour statistics

"LABORSTA" is the acronym which designates the whole set of ILO statistical databases covering all subjects for which the ILO is the custodian within the United Nations system. LABORSTA is managed and operated by the Bureau of Statistics. The contents of these databases have their origin in the commitment of the countries which are the member States of the International Labour Organization. By adhering to the organization and ratifying the ILO Core Conventions, Convention 160 on Labour Statistics, or the earlier Convention 63 concerning Statistics of Wages and Hours of Work, they thereby agree to comply to reporting on relevant information to the ILO, and in this case to the Bureau, on the statistics they collect. This reflects a commitment to sharing information in all domains - one of which only is statistics and constitutes a fundamental strength of the ILO. Other non-member countries and territories also cooperate in supplying their national statistics to the ILO by request, reflecting their recognition of the importance of the ILO and LABORSTA as a vehicle for international dissemination of their official statistics.

LABORSTA comprises nine major individual databases covering: 1) total and economically active population, 2) employment, 3) unemployment, 4) wages, 5) hours of work, 6) labour cost, 7) consumer price indices, 8) occupational injuries, and 9) strikes and lockouts. Custom-made extracts of any part of LABORSTA in printed or machine-readable form have been made available to the public for many years. Most requests are for long time-series for one or several countries and often for more than one subject. Recently, the Bureau's own basic statistics on the type and origin of such data requests and how they are responded to show that users are interested in all topics and all areas of the world. Breakdowns of the different subjects by industry, occupation and/or sex are most frequently required. Many users want information in the form of rates rather than as absolute numbers or levels. Unfortunately, some frequently recurring requests cannot easily be answered based on the official national statistics in LABORSTA, such as worldwide aggregates ("What is the world-wide unemployment rate?") or requests for combined results such as the share of wages in total production costs. Other queries difficult to answer take the shape of very detailed disaggregates ("number of employed dentists"), and for statistics which do not form a part of the core labour statistics topics covered in the Bureau (labour turnover rates, job flexibility, training statistics, etc.) and/or because few countries produce such statistics. Some requests can be redirected to other sources such as the United Nations or other international organizations or to national statistical offices themselves. Sometimes we

Milestones in ILO Labour Statistics Dissemination

- 1921:** *International Labour Review* publishes statistics
- 1935:** *1st Year Book of Labour Statistics*
- 1964:** *Technical Guide* series appears
- 1983:** **LABORSTA** database developed
- 1998:** **LABORSTA on the Web** available on Internet

can offer no solution or only approximations: a request for “number of blue collar workers” may be answered by suggesting the use of combined sub-groups of the International Standard Classification of Occupations. The Bureau’s user-request statistics are, however, insufficient to tell us enough about customers’ (changing) needs which, again, is why readers of this article are invited to provide answers and comments to the questions on the last page.

The labour statistics we can supply from LABORSTA allow users to perform various types of analysis over time as well as between countries and regions. All of the topics are important when depicting or quantitatively studying the world of work. Apart from the information they bring, the results of the research performed also contribute to enhancing the visibility of individual countries which might not otherwise receive as wide a review. Other than requests for statistics, numerous methodological and concept-related queries are also received. These are predominantly concerned with questions of definitions and issues of scope and coverage, or inquiries about ILO-recommended procedures, calculations, etc. Most of this type of information may be grouped into what is now referred to as metadata, the information surrounding the data.

Metadata

Metadata are any set of methodological information which describes and explains the statistics to which they relate. The ILO has regularly undertaken, in addition to publishing statistical tables, to provide users with detailed footnotes to tables as well as some basic methodological explanations of the statistics themselves. In the past, the latter took the form of introductory texts and later a series of *Technical Guides* which started in 1964 and continued up to 1980. After that year, the Bureau began disseminating information in a comprehensive series, now entitled *Sources and Methods: Labour Statistics* (see box below).

A novelty of the series is its organisation by type of data source, rather than by the subjects presented in the *Yearbook*, as in the past. Information is obtained through special questionnaires directly from countries and/or from national publications. There are currently ten separate volumes with various editions. Each volume gives standard, structured descriptions for data sources in the countries which provide the statistics published in the *Yearbook*. Volume 9 is a “one-of-a-kind” edition covering all the areas of labour statistics for countries in transition to take into account the major changes affecting labour statistics in their emerging labour markets. The texts of the methodological descriptions represent the biggest portion of stored meta-information related to the data.

In addition to these presentations of national sources and methods, other metadata available in the Bureau are the underlying concepts and definitions for subjects established by resolutions of the International Conferences of Labour Statisticians, as well as abbreviated versions of the international standard classifications used to present disaggregated data (ISIC, ISCO, ISCED, ICSE⁶). Together with the notes and the footnotes associated with the data tables, these metadata are essential for the proper understanding and analysis of the statistics, their scope, coverage and comparability.

Sources and Methods: Labour Statistics	
Vol. 1	<i>Consumer price indices</i>
Vol. 2	<i>Establishment surveys</i>
Vol. 3	<i>Household surveys</i>
Vol. 4	<i>Administrative records</i>
Vol. 5	<i>Population censuses</i>
Vol. 6	<i>Household income + expenditure surveys</i>
Vol. 7	<i>Strikes and lockouts</i>
Vol. 8	<i>Occupational injuries</i>
Vol. 9	<i>Transition countries</i>
Vol. 10	<i>Estimates and projections of the economically active population 1950-2010</i>

⁶ International Standard Industrial Classification of all Economic Activities (ISIC), International Standard Classification of Occupations (ISCO), International Standard Classification of Education (ISCED), International Classification by Status in Employment (ICSE).

Advantages/Disadvantages associated with the use of the technology

The latest capacities for data dissemination have resulted in heightened user awareness of the ILO itself and its role in the development of new and improved labour statistics. Because the Bureau accompanies its dissemination with the natural warnings and explanations concerning the data and their limitations, interest in the underlying sources and related international statistical standards and guidelines is generated. However, the increase in the volume of requests and the subsequent electronic distribution requires time and personnel to satisfy it. Some of the advantages gained by the rapidity of computerisation also created new requirements for the Bureau in order to best serve the interest being generated.

PART III: The ILO statistical Internet application

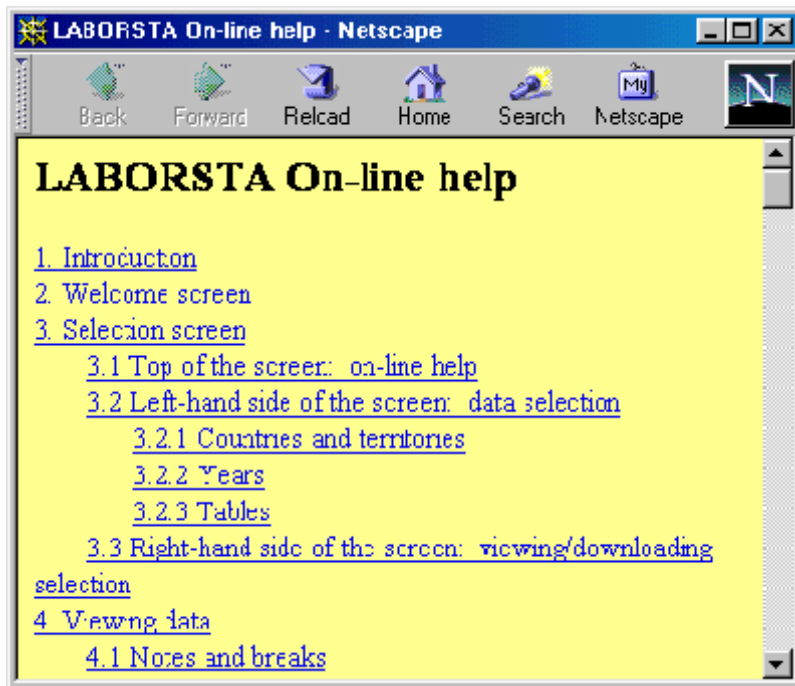
Dissemination through Internet

In the last ten years, several factors have entered into the Bureau's consideration of its role as disseminator of international labour statistics. One factor was the regular increase in user requests for electronic files containing extracts from LABORSTA, coming from a much wider array of users. This larger audience would conceivably require more guidance and information concerning the use and interpretation of the statistics being provided than the traditionally concerned experts and experienced statisticians we dealt with primarily in the past. The increased burden on the Bureau's staff, resources and functioning was another factor. The overriding consideration was the advent of new technologies such as CD-ROMs and the Internet which opened up enormous potential for innovation. Thus, while maintaining its primary programme of printed publications (necessary to many users in the world who still may not have easy access to electronic media), as well as its electronic data distribution service, the Bureau of Statistics began to develop an Internet application associated with its data bases. The aim was to give access to as much of the available statistics as possible to users of the World Wide Web. We baptised it: *LABORSTA on the Web*.

The Web application

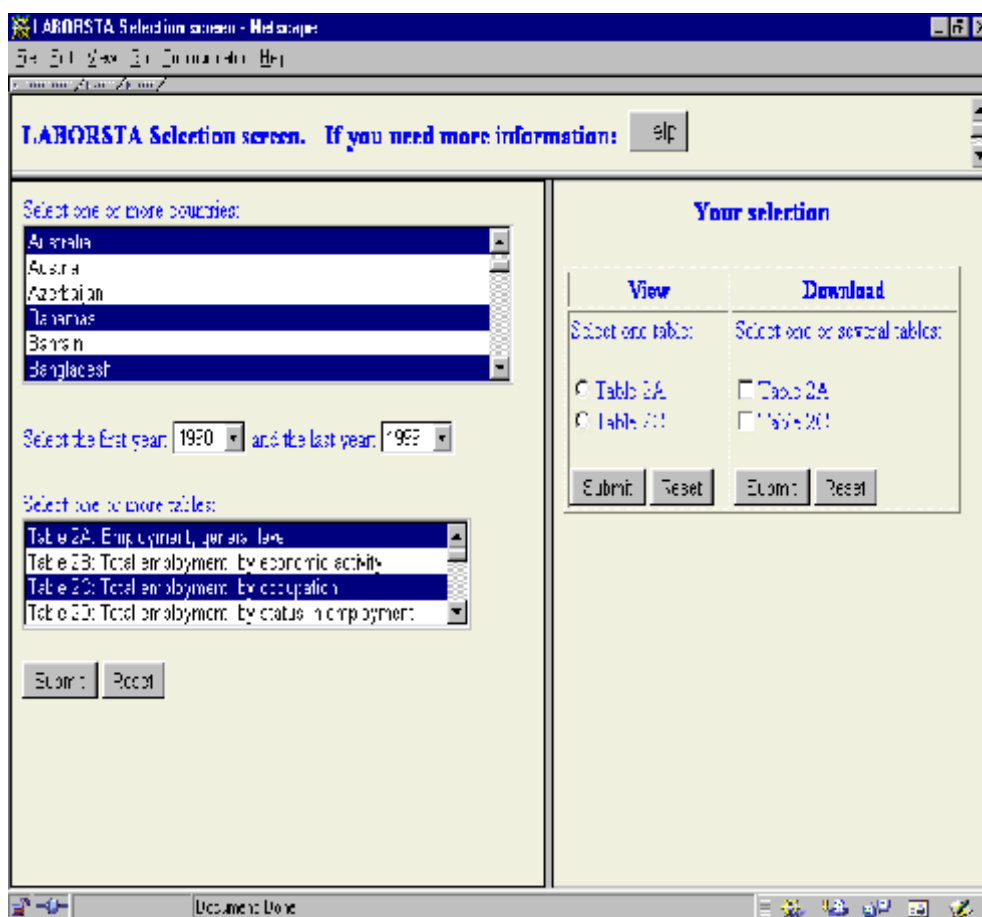
The application was designed during the summer of 1998 within the framework of an ILO interdepartmental project called "ILO Flagship Databases". The purpose of this project was to facilitate the availability of and improve access to all types of ILO information, through one common Internet entry point. The Bureau chose to develop its application using the computer software SAS: Statistical Analysis System. Originally a statistical package which was used in the Bureau to develop its data base systems and to perform statistical data analysis, SAS has transformed itself over the past decade into a fourth generation computer language comprising a specific module for Internet development work. Our application takes advantage of the particular possibilities of the user's Internet navigator and allows for the incorporation of numerous "hyper links" in order to offer a great quantity of metadata with the data themselves. In this way, *LABORSTA on the Web* is a dynamic application which combines in electronic form the multitude of statistical data and metadata previously contained in several full series of printed publications, namely the *Yearbook*, the *Bulletin*, *Sources and Methods*, etc. mentioned above. The Bureau presented its application to the public for the first time in October 1998 on the occasion of the 16th International Conference of Labour Statisticians.

Around 70,000 time-series on the main topics of labour statistics are accessible to public users of Internet. The main features of the application are that it allows users to select, view, print and download data as well as the relevant metadata. The combined statistical and metadata enhancement enables users to better understand the statistics and how they can be used for their needs. The welcome screen (shown on the front page of this article) opens the application and allows users to: i) display the "on-line help" screen (below) which contains the information required to select, view and download data, ii) print the help contents or, if users so wish, iii) minimize the "help" in the toolbar which can be invoked as needed during use of the application. From the welcome screen we continue to the "selection" screen, which is the heart of the system.



Accessing the data

The prevailing idea during the development and design of the application was to make the data accessible to users as simply as possible, with the least amount of navigation or, in other words, a minimum number of mouse “clicks” to avoid frustration due to too many manipulations before you are actually able to obtain the desired information. Directly following the “welcome” screen, therefore, users are taken to the “selection” screen (below).



The selection screen consists of three different parts or frames. The top frame enables the user to invoke the “help” facility at any time. In the left-hand frame, users can specify the three criteria (country, year, subject) needed to process a data request. The right-hand frame allows users to “view” or “download” data, according to their selection. Some 200 countries and territories are listed in alphabetical order by continent. By clicking in the selection window and typing a letter, the system is automatically positioned at the first listed country starting with the letter typed (for example "N" goes to Namibia). The possibility exists to select more than one country at a time. Several countries in a row may be selected: contiguous countries = "Shift+Click". For a non-contiguous selection of more than one country, use "Ctrl+Click". Start and end years may be specified or the default selection gives the 10 latest years. Following selection, the pending or waiting message is replaced with the confirmed selection as submitted to the Web server. The two-column table which then appears is either for “on-screen viewing” by users or to download to their own computer (the client).

Viewing the data

To “view” or display the data selected by the user, the application opens up the “display” screen (below) where the data are presented, one table per country. Within multi-country selections, each new country is indicated by a change of colour. Notice the table is multi-coloured where the blue titles indicate the hyper-links available, which when clicked take users to different selections of meta-information. Purple coloured cells signal a break in series.

LABORSTA Display screen - Netscape

File Edit View Go Communicator Help

LABORSTA Display screen

[Total employment, by economic activity \(thousands\)](#)

2B	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Canada										
Source (BA) Labour force survey										
Total employment										
ISIC Rev. 2 ^{1 2}										
Total men and women										
Total	12572.0	12440.0	12240.0	12383.0	13291.7 ³	13505.0	13576.2	13940.6		
1	531.0	554.0	533.0	550.0	544.0 ³	554.3	564.8	537.3		
2	182.0	174.0	157.0	150.0	157.0 ³	171.8	168.3	177.2		
3	2700.0 ⁴	2865.0 ⁴	1788.0 ⁴	2870.0 ⁴	1945.0 ³	2061.9	2182.5	2156.8		
4	136.0 ⁵	135.0 ⁵	149.0 ⁵	142.0 ⁵	144.0 ³	142.4	147.0	139.9		
5	773.0	845.0	631.0	660.0	750.0 ³	723.6	718.6	747.3		
6	3014.0	2535.0	2917.0	2912.0	3152.0 ³	3167.7	3254.1	3233.9		
7	815.0	781.0	773.0	767.0	834.0 ³	891.4	872.6	857.1		
8	1455.0	1471.0	1439.0	1466.0	1611.0 ³	1675.3	1718.5	1759.9		
9	3561.0 ⁶	3731.0 ⁶	3804.0 ⁶	3937.0 ⁶	4145.0 ³	4113.1	4149.8	4151.1		

Document Done

To “read” the table, proceed from the top to the bottom of the screen by clicking on the relevant hyper-links as follows :

1. Total employment, by economic activity is the subject of the table and links to the employment concept from the International Conference of Labour Statisticians’ resolution on employment, etc.;
2. 2B is the table number and links to specific explanations associated with the table;
3. Source (BA) Labour force survey links to the country’s Labour Force Survey methodological description from *Sources and Methods*; the purpose of the two-letter source code (BA) is to provide users with a rapid comparison criterion;
4. ISIC Rev.2 links to the text of the relevant International Standard Classification, at the level of detail presented. Data displayed according to updated versions of a classification are shown, one following the other. This example is the Rev.2 version of the industry classification;
5. Note Call Superscripts 1, 2, 3, etc. refer to explanations at the end of each country table (not shown here);
6. The purple cells in the year 1994 indicate a break in the time-series as compared to data for earlier years - the text of note 3 at the end of the table explains the break.

Along with the country and source-specific information associated with a table, users can at any time also browse the rest of the metadata (concepts, definitions, classifications, methodological descriptions) associated with any of the statistics contained in the Web application. Updating of the statistics in the application is done annually at the same time as the distribution of the latest *Yearbook* edition.

Downloading the data

Once one or more tables have been selected and the request has been submitted, a dialog box appears. Users must specify whether they wish to open the downloaded file or save it on a disk. Submitted tables can be downloaded in a CSV (comma separated values) file specifying the file name, which can be stored on disk or imported directly into any software data facility such as Excel, Access, etc. This process works automatically if the list separator of the operating system is a comma and the computer is set up to open files with the CSV extension into the desired application - Excel in the screen example (shown below). Settings depend on users' requirements and will vary from one computer to the next. The defining and design elements of tables for export

Row	Column	Value
1	A	INTERNATIONAL LABOUR ORGANIZATION, Geneva
2	B	ARCPSTA - Annual Statistics Database
3	C	Copyright International Labour Organization - 1976-2011
4	D	Select years: 1980-1999
5	E	country(ies): AU
6	F	table(s): 2A
7	G	excluded in 5/02/2001.
8	H	Data are presented after the row START DATA
9	I	Data dictionary after row START DICTIONARY
10	J	Explanatory notes after row START NOTES
11	K	START DATA
12	L	SO2
13	M	SO1S
14	N	W
15	O	L
16	P	CL1
17	Q	CL2
18	R	CL3
19	S	CL4
20	T	CL5
21	U	CL6
22	V	CL7
23	W	CL8
24	X	CL9
25	Y	CL10
26	Z	CL11
27	AA	CL12
28	AB	CL13
29	AC	CL14
30	AD	CL15
31	AE	CL16
32	AF	CL17
33	AG	CL18
34	AH	CL19
35	AI	CL20
36	AJ	CL21
37	AK	CL22
38	AL	CL23
39	AM	CL24
40	AN	CL25
41	AO	CL26
42	AP	CL27
43	AQ	CL28
44	AR	CL29
45	AS	CL30
46	AT	CL31
47	AU	CL32
48	AV	CL33
49	AW	CL34
50	AX	CL35
51	AY	CL36
52	AZ	CL37
53	BA	CL38
54	BB	CL39
55	BC	CL40
56	BD	CL41
57	BE	CL42
58	BF	CL43
59	BG	CL44
60	BH	CL45
61	BI	CL46
62	BJ	CL47
63	BK	CL48
64	BL	CL49
65	BM	CL50
66	BN	CL51
67	BO	CL52
68	BP	CL53
69	BQ	CL54
70	BR	CL55
71	BS	CL56
72	BT	CL57
73	BU	CL58
74	BV	CL59
75	BW	CL60
76	BX	CL61
77	BY	CL62
78	BZ	CL63
79	CA	CL64
80	CB	CL65
81	CC	CL66
82	CD	CL67
83	CE	CL68
84	CF	CL69
85	CG	CL70
86	CH	CL71
87	CI	CL72
88	CJ	CL73
89	CK	CL74
90	CL	CL75
91	CM	CL76
92	CN	CL77
93	CO	CL78
94	CP	CL79
95	CQ	CL80
96	CR	CL81
97	CS	CL82
98	CT	CL83
99	CU	CL84
100	CV	CL85
101	AW	CL86
102	AX	CL87
103	AY	CL88
104	AZ	CL89
105	BA	CL90
106	BB	CL91
107	BC	CL92
108	BD	CL93
109	BE	CL94
110	BF	CL95
111	BG	CL96
112	BH	CL97
113	BI	CL98
114	BJ	CL99
115	BK	CL100
116	BL	CL101
117	BM	CL102
118	BN	CL103
119	BO	CL104
120	BP	CL105
121	BQ	CL106
122	BR	CL107
123	BS	CL108
124	BT	CL109
125	BU	CL110
126	BV	CL111
127	BW	CL112
128	BX	CL113
129	BY	CL114
130	BZ	CL115
131	CA	CL116
132	CB	CL117
133	CC	CL118
134	CD	CL119
135	CE	CL120
136	CF	CL121
137	CG	CL122
138	CH	CL123
139	CI	CL124
140	CJ	CL125
141	CK	CL126
142	CL	CL127
143	CM	CL128
144	CN	CL129
145	CO	CL130
146	CP	CL131
147	CQ	CL132
148	CR	CL133
149	CS	CL134
150	CT	CL135
151	CU	CL136
152	CV	CL137
153	AW	CL138
154	AX	CL139
155	AY	CL140
156	AZ	CL141
157	BA	CL142
158	BB	CL143
159	BC	CL144
160	BD	CL145
161	BE	CL146
162	BF	CL147
163	BG	CL148
164	BH	CL149
165	BI	CL150
166	BJ	CL151
167	BK	CL152
168	BL	CL153
169	BM	CL154
170	BN	CL155
171	BO	CL156
172	BP	CL157
173	BQ	CL158
174	BR	CL159
175	BS	CL160
176	BT	CL161
177	BU	CL162
178	BV	CL163
179	BW	CL164
180	BX	CL165
181	BY	CL166
182	BZ	CL167
183	CA	CL168
184	CB	CL169
185	CC	CL170
186	CD	CL171
187	CE	CL172
188	CF	CL173
189	CG	CL174
190	CH	CL175
191	CI	CL176
192	CJ	CL177
193	CK	CL178
194	CL	CL179
195	CM	CL180
196	CN	CL181
197	CO	CL182
198	CP	CL183
199	CQ	CL184
200	CR	CL185
201	CS	CL186
202	CT	CL187
203	CU	CL188
204	CV	CL189
205	AW	CL190
206	AX	CL191
207	AY	CL192
208	AZ	CL193
209	BA	CL194
210	BB	CL195
211	BC	CL196
212	BD	CL197
213	BE	CL198
214	BF	CL199
215	BG	CL200
216	BH	CL201
217	BI	CL202
218	BJ	CL203
219	BK	CL204
220	BL	CL205
221	BM	CL206
222	BN	CL207
223	BO	CL208
224	BP	CL209
225	BQ	CL210
226	BR	CL211
227	BS	CL212
228	BT	CL213
229	BU	CL214
230	BV	CL215
231	BW	CL216
232	BX	CL217
233	BY	CL218
234	BZ	CL219
235	CA	CL220
236	CB	CL221
237	CC	CL222
238	CD	CL223
239	CE	CL224
240	CF	CL225
241	CG	CL226
242	CH	CL227
243	CI	CL228
244	CJ	CL229
245	CK	CL230
246	CL	CL231
247	CM	CL232
248	CN	CL233
249	CO	CL234
250	CP	CL235
251	CQ	CL236
252	CR	CL237
253	CS	CL238
254	CT	CL239
255	CU	CL240
256	CV	CL241
257	AW	CL242
258	AX	CL243
259	AY	CL244
260	AZ	CL245
261	BA	CL246
262	BB	CL247
263	BC	CL248
264	BD	CL249
265	BE	CL250
266	BF	CL251
267	BG	CL252
268	BH	CL253
269	BI	CL254
270	BJ	CL255
271	BK	CL256
272	BL	CL257
273	BM	CL258
274	BN	CL259
275	BO	CL260
276	BP	CL261
277	BQ	CL262
278	BR	CL263
279	BS	CL264
280	BT	CL265
281	BU	CL266
282	BV	CL267
283	BW	CL268
284	BX	CL269
285	BY	CL270
286	BZ	CL271
287	CA	CL272
288	CB	CL273
289	CC	CL274
290	CD	CL275
291	CE	CL276
292	CF	CL277
293	CG	CL278
294	CH	CL279
295	CI	CL280
296	CJ	CL281
297	CK	CL282
298	CL	CL283
299	CM	CL284
300	CN	CL285
301	CO	CL286
302	CP	CL287
303	CQ	CL288
304	CR	CL289
305	CS	CL290
306	CT	CL291
307	CU	CL292
308	CV	CL293
309	AW	CL294
310	AX	CL295
311	AY	CL296
312	AZ	CL297
313	BA	CL298
314	BB	CL299
315	BC	CL300
316	BD	CL301
317	BE	CL302
318	BF	CL303
319	BG	CL304
320	BH	CL305
321	BI	CL306
322	BJ	CL307
323	BK	CL308
324	BL	CL309
325	BM	CL310
326	BN	CL311
327	BO	CL312
328	BP	CL313
329	BQ	CL314
330	BR	CL315
331	BS	CL316
332	BT	CL317
333	BU	CL318
334	BV	CL319
335	BW	CL320
336	BX	CL321
337	BY	CL322
338	BZ	CL323
339	CA	CL324
340	CB	CL325
341	CC	CL326
342	CD	CL327
343	CE	CL328
344	CF	CL329
345	CG	CL330
346	CH	CL331
347	CI	CL332
348	CJ	CL333
349	CK	CL334
350	CL	CL335
351	CM	CL336
352	CN	CL337
353	CO	CL338
354	CP	CL339
355	CQ	CL340
356	CR	CL341
357	CS	CL342
358	CT	CL343
359	CU	CL344
360	CV	CL345
361	AW	CL346
362	AX	CL347
363	AY	CL348
364	AZ	CL349
365	BA	CL350
366	BB	CL351
367	BC	CL352
368	BD	CL353
369	BE	CL354
370	BF	CL355
371	BG	CL356
372	BH	CL357
373	BI	CL358
374	BJ	CL359
375	BK	CL360
376	BL	CL361
377	BM	CL362
378	BN	CL363
379	BO	CL364
380	BP	CL365
381	BQ	CL366
382	BR	CL367
383	BS	CL368
384	BT	CL369
385	BU	CL370
386	BV	CL371
387	BW	CL372
388	BX	CL373
389	BY	CL374
390	BZ	CL375
391	CA	CL376
392	CB	CL377
393	CC	CL378
394	CD	CL379
395	CE	CL380
396	CF	CL381
397	CG	CL382
398	CH	CL383
399	CI	CL384
400	CJ	CL385
401	CK	CL386
402	CL	CL387
403	CM	CL388
404	CN	CL389
405	CO	CL390
406	CP	CL391
407	CQ	CL392
408	CR	CL393
409	CS	CL394
410	CT	CL395
411	CU	CL396
412	CV	CL397
413	AW	CL398
414	AX	CL399
415	AY	CL400
416	AZ	CL401
417	BA	CL402
418	BB	CL403
419	BC	CL404
420	BD	CL405
421	BE	CL406
422	BF	CL407
423	BG	CL408
424	BH	CL409
425	BI	CL410
426	BJ	CL411
427	BK	CL412
428	BL	CL

Users may choose not to retain such information when dealing with the data after they have downloaded it must be received by them.

Purposes served

Up to the present time, all of the information made public by the International Labour Office through the Bureau of Statistics' application is on a complimentary basis. In this respect, LABORSTA is different from other statistical sites on the Internet, as is the close interface between the statistical data and the metadata making them available simultaneously, on-line. The Bureau considered but rejected the production of a CD-Rom for dissemination of the LABORSTA data electronically, primarily because of the lack of an efficient means to regularly update the statistics. Development of the Internet application takes advantage of the superior potential to reach out to the public provided by the World Wide Web within the cost-frame of the budget provided by the ILO constituents. Inside the ILO, the application is available at every single work station which is linked up to the Internet, thus also giving all (statistical and non-statistical staff) in the Office access to *LABORSTA on the Web* for their work.

Future outlook

Following the experience gained in making the application available on Internet, several steps are envisaged next: 1) making the site trilingual as are all ILO printed statistical publications; 2) extending the coverage to all statistical subjects included in the *Yearbook of Labour Statistics*; 3) introducing other regional groupings apart from individual countries, such as worldwide, more developed, less developed or others; and 4) incorporating the Bureau's second largest data base, LABOCT (results of the ILO's annual *October Inquiry*, from 1983 on wages and hours of work and from 1985 on food prices) into the site.

Under the umbrella of statistical information and technology management, the Bureau is considering documenting a quality control system associated with the statistics which we disseminate. Together with the systematic information concerning the sources of data, this would provide users with an indication of the quality features and reliability of the national statistics made available.

Linked to the use of the Internet technology is the development of new, standard electronic reporting formats, expected to assist countries to respond to ILO information requests in a way which is harmonised with the site's specificity. Further hyper-links to the Web sites of other ILO programmes and/or departments⁷, for example, international and other United Nations agencies etc. will also be implemented where possible.

Additional changes could also depend on the findings obtained through the feedback to our inquiry below, thanks to your interest and replies.

Feedback from users

After having visited the site *LABORSTA on the Web*, you may have ideas concerning other information you would wish to find there, or on different improvements you would like to see take place. If this is the case, kindly provide us with your responses to the information requested below. Our email connexion is available at the address laborsta@ilo.org.

⁷ One example is the Key Indicators of the Labour Market (KILM) programme to which LABORSTA provides some 60% of the data underlying the indicators or used to derive them.

Questions to users of LABORSTA on the Web:

1. Please tell us what kind of user you are (e.g. government policy maker, student, worker or employer representative) ?
2. Are you interested in our data for an individual or institutional reason?
3. What is your purpose in viewing /downloading our data?
4. How many times approximately have you visited the site - or is this your first time?
5. What suggestions to improve the site or additions to the information presented would you make?
6. How does this site compare with other statistical Web sites that you have used?
7. What other comments would you like to make?
(Please feel free.)