

Statistics Framework Study

Working Document No.2

DATA DICTIONARY AND ASSOCIATED TIME SERIES DATA,
BASED ON THE 'PRICE WATERHOUSE REPORT'

Statistical Information Services
Communications Economics Branch
Department of Communications

S. Brown and J. Braden
April 1982

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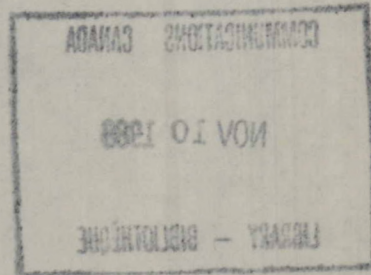
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Data Dictionary and Associated Time Series Data, Based on the 'Price Waterhouse Report'

1. INTRODUCTION

A series of tables is contained in Appendix E of the 'Price Waterhouse Report' (November 30, 1981). It was felt that it might be worthwhile to put the data contained in these tables into a computerized format and so, as a consequence, a data dictionary was prepared on work sheets which are attached as an appendix to this report. The general purpose of this report is to provide a broad appreciation of what is contained in the 'data dictionary' and to provide some documentation on it

2. Purpose of the 'Data Dictionary'

The purpose of the dictionary is multifold:

1. To provide a complete list of all of the data items contained in Appendix E of the 'Price Waterhouse Report'.
2. To record the data presented in Appendix E of the report (see columns 6-16, ink figures)
3. To provide missing data, (where possible), for the years 1970 - 1980. (see columns 6-16, penciled figures)
4. To assign appropriate subject matter description to each time series (see column 4)
5. To assign an "acronym" to each of the time series linking their dictionary with the location of the item in the 'Price Waterhouse Report' appendix (see column 5)
6. To record the original source document for each of the time series (see column 3)
7. To provide a list of corresponding acronyms for those variables which are contained in the 'Mosaic Databases' (see column 1) and the years for which it is available (see column 2).

Unlike the 'Price Waterhouse Report', which is less specific, the 'Data Dictionary' lists sources of the data for each of the time series. Missing data items are also provided, where possible, and in a few cases discrepancies between the source documents and those provided by Price Waterhouse have been identified and corrected. Those data items for which no data could readily be obtained have also been clearly identified.

Of the 979 data values contained in the report (89 time series x 11 years), 72 or 7.35% are still missing, 154 or 15.73% were provided by us because the data were missing, and 15 or 1.53% were corrected to agree with the original source documents. (It should be noted that although some errors were identified and corrected during the preparation of the data dictionary work sheets, most of the time series data have not been checked with appropriate source documents and could conceivably contain some errors.) Therefore roughly 75 percent of the data contained in the "data dictionary" were taken from Appendix E of the 'Price Waterhouse Report'. At this time 92.5 percent of the time series data are complete for the years 1970 - 1980, and in addition, 1981 data was included for

14 of the 89 time series, since the information was readily available.

3. Contents

The 'data dictionary' contains data relating primarily to 15 subsector components of the Communications/Information Sector, specifically:

Subsector Component	Subsector
1. Telephone Industry	} Carriage
2. Canada Post	
3. Other Telecommunications	
4. Cable Television	} Equipment
5. Household Radio and TV Equipment	
6. Communications Equipment	
7. Office and Store Machinery	} Computer Services
8. Computer Services	
9. Sales and Rentals of EDP Hardware	} Content
10. Broadcasters	
11. Printing and Publishing	
12. Publishing Only	
13. Film and Videotape Production	
14. Cinemas	
15. Film Distribution	

The 'data dictionary' contains data on the following:

1. Operating Revenues and Employment. Data are provided for all of the subsector components other than for Cinemas and Film Distribution.
2. Data on Apparent Domestic Market, Shipments, Imports, Exports, and Trade Balance for the equipment sub-sector only.
3. Additional data items included for its carriage subsector are: Plant at Cost, Depreciation, Message Volumes, Number of Subscribers, and Number of Telephones.

4. Methodology

The basis of the data contained in the economics framework 'data dictionary' covered by this report are the tables contained in Appendix E of the 'Price Waterhouse Report'.

Each of the time series included in the 'data dictionary' have been extracted in whole, or in part, from one of the tables in the appendix of that report. An "acronym" has been assigned to each of the time series. The basis of the acronym is the following. Each acronym consists of an E followed by a four digit number. The 'E' identifies the 'Price Waterhouse Report' Appendix, the first two digits identify the table number of the appendix, and the last two digits the variable itself. For instance, the table included in the Appendix titled "Message Volumes" is table 2. The first item (time series) included is 'local telephone calls', and the second 'toll telephone calls'. (E0201 and E0202).

Therefore there is a complete and easily understood correspondence between the items contained in the 'data dictionary' and the 'Price Waterhouse Report'.

Where the discrepancy between any figure in the 'Price Waterhouse Report' and the source documents was identified, the figure from the source document was substituted. This occurred in the following time series for the given years:

<u>Time Series</u>	<u>Years</u>
E0408	1980
E0409	1980
E0804	1977, 1979
E1501	1977, 1978, 1979
E1502	1977, 1978, 1979
E1504	1977, 1978, 1979
E1505	1978, 1979

5. Summary Statistics

1. This 'data dictionary' contains 11 years of data (1970 - 1980) on 89 time series for a potential of 979 data items.
2. Number of complete time series = 66
Number of time series missing 1 year = 13
Number missing more than 1 year of data = $\frac{10}{89}$
Total Series
3. The time series are 92.5% complete for the years 1970-1980 (905 of the 979 items). The principal reasons for missing data are:
 - 1) Data sources are not yet available
 - 2) Data are not available from written sources for earlier years.
4. Twenty-two of the 89 time series are also available on the 'Mosaic Database', however, two extra years (1970 and 1971) are included in the 'Data Dictionary'.

6. Conclusion

This report, together with completed working sheets constitute the completion of the second part of Phase I of this study. The appendix contains further documentation on the "Missing Data Items". The working sheets (Appendix B) are on file in DSI and are available to anyone wishing to examine them.

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Data, Based on the 'Price Waterhouse Report'

Documentation of Missing Items

1. Introduction

This appendix contains documentation on the items on which data are missing, and the reasons for them.

2. Time Series Missing Only One Year of Data

1. STC Cat. 56-201 is not yet available for 1980, therefore the following time series are complete only to 1979:
E0205
E0803
E1606
E1607
E1608
2. STC Cat. 36-203 is not yet available for 1980, therefore the following time series are complete only to 1979.
E0702
E0703
E1002
E1003
3. STC Cat. 43-206 is not yet available for 1980, therefore time series E0902 is complete only to 1979.
4. Time Series E0202 is missing data only for 1970 because the 1970 Canada Post Annual Report is not available in the DOC Library.
5. Total Household Figures in time series E0304 are missing for 1980 because it was not determined from which Statistics Canada Catalogue the figures were obtained for years 1970-1979. No comparison was found in STC Cat. 56-205 or 64-202.

3. Time Series Missing Two or More Years of Data

1. Data were not reported prior to 1979 for time series E0404 (Record Players and Tape Recorders) in STC. Cat. 64-202.
2. Data were not reported prior to 1975 for time series E0406 (Cable TV) in STC Cat. 64-202. Data for 1976 are missing because this catalogue was not available in the DOC Library.

Appendix A

3. E0604, E0605, E0904, E0905 are missing data for years prior to 1974 because this data were not published for these years in STC Cat. 63-222. Data for 1980 are not available because STC Cat. 63-222 is not yet available for 1980.
4. E0704, E0705 and E0706 are missing data for years prior to 1975 because the data were not available in STC Catalogue 63-206 and 63-207. Data are also missing for 1980 because catalogues (63-206, 63-207) are not yet available for 1980.
5. E1004 is missing data for years prior to 1975 because data on # of employees in "Film and Videotape Production" are not available for these years in STC Cat. 36-207. 1980 data are missing because STC Cat. 36-207 is not yet available for 1980.

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Data Dictionary Work Sheets

1. Introduction

This appendix contains a detailed description of the contents of the Data Dictionary Work Sheets which are on file in DSI and are available to anyone wishing to examine them.

2. Organization and Contents of the Data Dictionary

The data dictionary contains a detailed description and the associated time series data on 89 variables contained in Appendix E of the 'Price Waterhouse Report'. Missing data has been added, where possible, and in a few cases discrepancies between the source documents and those provided by Price Waterhouse have been identified and corrected.

On the 89 variables contained in Appendix E of the 'Price Waterhouse Report' the following information is provided:

1. MOSAIC ACRONYM.
2. Corresponding years of data contained in the Mosaic data base, when available.
3. Source of the data (Statistics Canada Catalogue Numbers, Annual Returns, and Government Reports).
4. Description of the data.
5. Data dictionary Acronym assigned based on the location of the variable in the 'Price Waterhouse Report'.
6. 11 years of data (1970 to 1980) on each variable.
7. Identification of missing data items and their reasons.

3. List of Variables

The following is a list of the 89 variables contained in the data dictionary and associated time series data.

<u>Obs.</u>	<u>Acronym</u>	<u>Description</u>
1.	E0201	Local Telephone Calls (millions)
2.	E0202	Toll Telephone Calls (millions)
3.	E0203	Originating Mail - First Class (millions)
4.	E0204	Originating Mail - Total (millions)
5.	E0205	Telegrams (millions)
6.	E0301	Residence Telephones (thousands)

<u>Obs.</u>	<u>Acronym</u>	<u>Description</u>
7.	E0302	Business Telephones (thousands)
8.	E0303	Cable TV Subscribers (thousands)
9.	E0304	Total Households (thousands)
10.	E0401	Percentage of Households with Radios
11.	E0402	" " " " TV (all types)
12.	E0403	" " " " Telephones
13.	E0404	" " " " Record Players and Tape Recorders
14.	E0405	" " " " TV (colour)
15.	E0406	" " " " Cable TV
16.	E0407	" " " " Electric Refrigerators
17.	E0408	" " " " Flush Toilets
18.	E0409	" " " " Installed Bath Facilities
19.	E0410	" " " " Automobiles
20.	E0411	" " " " Electric Washers
21.	E0412	" " " " Clothes Dryers
22.	E0413	" " " " Home Freezers
23.	E0414	" " " " Dishwashers
24.	E0501	Post Office Revenues (\$ millions)
25.	E0502	Telephone Companies Revenues (\$ millions)
26.	E0503	Other Telecommunications Revenues (\$ millions)
27.	E0504	Cable TV Revenues (\$ millions)
28.	E0601	Val. of Shipments - Household Radio & TV (\$ millions)
29.	E0602	" " " - Communications Equip. (\$ millions)
30.	E0603	" " " - Office and Store Mach. (\$ millions)
31.	E0604	Computer Services Equipment (\$ millions)
32.	E0605	Sales and Rental of EDP Hardware (\$ millions)
33.	E0701	Broadcasters (\$ millions)
34.	E0702	Printing and Publishing - Value of Shipments (\$ millions)
35.	E0703	Publishing Only (\$ millions)
36.	E0704	Film and Videotape Production (\$ millions)
37.	E0705	Cinemas (\$ millions)
38.	E0706	Film Distributors (\$ millions)
39.	E0801	Employees - Post Office
40.	E0802	" - Telephone Companies
41.	E0803	" - Other Telecommunications
42.	E0804	" - Cable TV
43.	E0901	" - Household, Radio & TV Equipment
44.	E0902	" - Communications Equipment
45.	E0903	" - Office and Store Machinery
46.	E0904	" - Computer Services
47.	E0905	" - Sales and Rental of EDP Hardware
48.	E1001	" - Broadcasting
49.	E1002	" - Printing and Publishing
50.	E1003	" - Publishing Only
51.	E1004	" - Film and Videotape Production (\$ millions)
52.	E1101	Communications Equipment (incl. components) - Apparent Domestic Market (\$ millions)
53.	E1102	Communications Equipment (incl. components) - Imports Less Re-Exports (\$ millions)
54.	E1103	Communications Equipment (incl. components) - Exports (\$ millions)

<u>Obs.</u>	<u>Acronym</u>	<u>Description</u>
55.	E1104	Communications Equipment (incl. components) - Trade Balance (\$ millions)
56.	E1105	Communications Equipment (incl. components) - Shipments as a % of Appar. Dom. Market
57.	E1106	Communications Equipment (incl. components) - Shipments as a percentage of A.D.M.
58.	E1201	Communications Equipment - Imports (\$ millions)
59.	E1202	" " " " - Exports (\$ millions)
60.	E1203	" " " " - Balance (\$ millions)
61.	E1204	Components - Imports (\$ millions)
62.	E1205	" " " " - Exports (\$ millions)
63.	E1206	" " " " - Balance (\$ millions)
64.	E1301	Office and Store Machinery - Apparent Domestic Market (\$ millions)
65.	E1302	Office and Store Machinery - Shipments (\$ millions)
66.	E1303	" " " " - Imports Less Re-exports (\$ millions)
67.	E1304	Office and Store Machinery - Exports (\$ millions)
68.	E1305	" " " " - Trade Balance (\$ millions)
69.	E1306	" " " " - Shipment as a % of Apparent Domestic Market
70.	E1401	Household Radio and TV Equipment - Apparent Domestic Market (\$ millions)
71.	E1402	Household Radio and TV Equipment - Shipments (\$ millions)
72.	E1403	" " " " " - Imports (\$ millions)
73.	E1404	" " " " " - Exports (\$ millions)
74.	E1405	" " " " " - Trade Balance (\$ millions)
75.	E1406	" " " " " - Shipment as a % of A.D.M.
76.	E1501	Gross Domestic Market at Factor Cost - Total (\$ millions)
77.	E1502	" " " " " - Communications Sector (\$ millions)
78.	E1503	" " " " " - Comm. Sector as a % of Total
79.	E1504	Wages, Salaries and Supp. Lab. Inc - Total (\$ millions)
80.	E1505	" " " " " - Comm. Sector (\$ millions)
81.	E1506	" " " " " - Comm. as a % of Total
82.	E1601	Plant at Cost, Telephone Companies (\$ millions)
83.	E1602	Accumulated Depreciation, Telephone Companies (\$ millions)
84.	E1603	Net Plant, Telephone Companies (\$ millions)
85.	E1604	Net Plant/Employees - Telephone Companies
86.	E1605	Plant at Cost - Telegraph and Cable (\$ millions)
87.	E1606	Accumulated Depreciation - Telegraph and Cable (\$ millions)
88.	E1607	Net Plant - Telegraph and Cable (\$ millions)
89.	E1608	Net Plant/Employee - Telegraph and Cable (\$ millions)

