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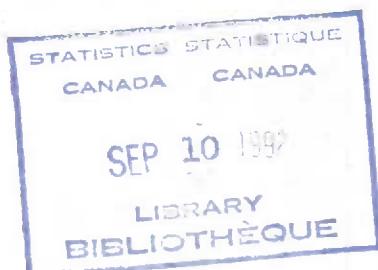
Statistics Canada  
Input-Output Division

Preliminary

**On the Variability of Input-Output  
Structures: A Progress Report on the  
Constant Price Industrial Input Structure**

by

**Terri Markle  
René Durand**



April 1988

## TABLE OF CONTENTS

	Page
<b>Introduction</b>	1
1. Overall Summary Results.	3
2. The Time Profile of Variability.	18
3. Variability of the Input Structure Across Industries.	22
4. Assessing Price Stability.	28
<b>Appendices</b>	
Appendix 1: The Price Sensitivity of Entropy and the Decomposition of Entropy for Current Price Inputs into a Price and a Quantity Component.	
Appendix 2: Descriptive Summary Report of Entropy Results from an Industry Decomposition of Constant Price Inputs at the L Level of Aggregation for One and Two Year Time Intervals.	
Appendix 3: Alternative Significance Test Results for Absolute Differences Between Paired Entropy Results Corresponding to Current and Constant Price Industry Input Structures by Time Interval and by Decade.	

## Graphical Illustrations

Graph	Description	Page
1A, 1B, 1C	Percentage Distribution of Industry Entropies, Corresponding to One Year Intervals, for Constant Price Inputs, by Decade.	6
1D, 1E, 1F	Percentage Distribution of Industry Entropies, Corresponding to One Year Intervals, for Current Price Inputs, by Decade.	9
2A, 2B, 2C	Percentage Distribution of Industry Entropies, Corresponding to Two Year Intervals, for Constant Price Inputs, by Decade.	12
2D, 2E, 2F	Percentage Distribution of Industry Entropies, Corresponding to Two Year Intervals, for Current Price Inputs, by Decade	15
3	Entropy Results from an Industry Decomposition of Constant Price Inputs.	19
4	Entropy Results Corresponding to a Decomposition of Constant Price Inputs into Four Major Industry Groups	23
5	Overlay of Entropy Results Corresponding to Current and Constant Price Input Structures, for Intervals of One and Two Years.	29
6A, 6B, 6C	Percentage Distribution of Industry Entropy Comparison Ratios for Current and Constant Price Inputs Corresponding to One Year Intervals, by Decade.	34

<u>Graph</u>	<u>Description</u>	<u>Page</u>
7A, 7B, 7C	Percentage Distribution of Industry Entropy Comparison Ratios for Current and Constant Price Inputs, Corresponding to Two Year Intervals, by Decade.	37
8	Overlay of Entropy Results Corresponding to Current and Constant Price Input Structures, for Intervals of One, Two, and Five Years.	41
9A, 9B	Percentage Distribution of Industry Entropy Comparison Ratios for Current and Constant Price Inputs Corresponding to Five Year Intervals, by Decade.	43

This report is second in a series of reports, the objective of which is to provide documentation, on a structure by structure basis, of the empirical results associated with the study of variability of input-output structures. The first report was devoted to the analysis of empirical results pertaining to the variability of the matrix of industries' inputs (primary and intermediate) in current prices, at the L level of aggregation, over the period 1961 to 1984<sup>1</sup>. The results covered in this report are based on the variability estimates that were generated for the corresponding constant price enlarged use matrix at the L level of aggregation over the time period 1961 to 1984. Once again, the computations are based on the cross entropy measures over time horizons of one and two years. In addition, entropy computations for both current and constant price input structures over a time horizon of five years have been added. Most of the tables and graphs contained in this report may be familiar as they were modeled after those contained in the previous report (based on the current price use structure). Preservation of this original format facilitates the comparison between the respective variability estimates obtained for the current and constant price use structures.<sup>2</sup>

The following dimensions of variability will again be considered:

1. The time profile;
2. The industry profile;
3. The time span separating any pair of tables limited to one, two, and five years.

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1. Durand R. and Markle T., "Measuring the Variability of Input-Output Structures: A Progress Report", Statistics Canada, Input-Output Division, December 1987.

2. The authors again wish to thank Duane Hayes who developed the TERF and SAS computer programs used in this report.

It should be noted that some degree of discontinuity exists within the constant price time series of input-output tables for the period 1961 to 1984. This discontinuity is attributable to the methodology which has been employed for the production of constant price input-output tables (i.e. through deflation of the current price input-output tables). Constant price input-output tables are constructed using a Laspeyres index number formula which requires, in general, that a fixed set of relative prices be established for some base period of comparison. Hence, for the period 1961 to 1984 the constant price input-output series is composed of three disjoint series due to the revisions of relative prices which have taken place in the years 1971 and 1981. This imposes some limitations on the scope of the analysis of variability of the constant price use structure with respect to the dimensions already mentioned. Consequently, the comparisons which can be made between the respective variability estimates obtained for the current and constant price use structures will be somewhat restricted.

More precisely, the constant price input structure might be interpreted either as a set of technical coefficients, describing the production technology (except for the real value added input share which is computed residually), or as a set of constant price cost shares. The entropy measure cannot apply to the former interpretation as the input-output coefficients could be equivalently defined in some other units of measurement (tons, cubic feet, kilowatt-hour, etc.) in which case their sum would be meaningless. We are thus left with the interpretation of the constant price coefficients as constant price cost shares. These shares are built on the assumption that relative prices remain constant at their base year values. But under such an assumption, both the current and constant price cost shares would be identical in any chosen year so that, strictly speaking, only current price estimates of variability would be needed<sup>3</sup>.

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3. This issue is clarified in Appendix 1.

The constant price cost shares, therefore, have only a limited interpretation which relates to a hypothetical state of the world in which all relative prices would have remained fixed. But, on the other hand, the variability of the input structure in current and in constant prices precisely differs to the extent of the observed changes in relative prices. This leads us to what is probably the more interesting interpretation which results as we may then, loosely speaking, separate the variability of the cost structure of industries into a quantity and a price component<sup>4</sup>.

Since the entropy measure is sensitive to the choice of a base year for constant price valuation, no strong comparisons will be made between the sets of results having a different price base year. For this reason, all of the graphs and tables (including those that relate to the current price input structure) have been produced separately for each of the three decades that correspond to a different base set of relative prices.

### 1. Overall Summary Results

In order to exhibit how structural variability has evolved over the three periods covered, across industries, we have computed summary statistics which appear in Table 1A on page 4. These statistics include the average overall entropy, based on values for the complete time series for each for the two time horizons, the corresponding minimum and maximum value and the standard deviation. The analogous summary statistics have also been computed for the decomposition of variability into its "between" and "within" industry subcomponents. The variability between industries accounts for the changes in the industries' input shares of total inputs (equivalently of total outputs) while the within industries component accounts for the average changes in the input structure of all industries, weighted by their current relative input shares.

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4. In a non causal fashion as technical ratios will adjust to changing relative prices.

**Table 1A: Summary Statistics of Variability for the Constant Price, Level, Industrial Input Structure.**

	Between Industries		Within Industries		Total	
	1 year	2 year	1 year	2 year	1 year	2 year
1961 - 1971						
Average Entropy	0.0020	0.0041	0.0070	0.0129	0.0090	0.0169
Minimum	0.0012	0.0028	0.0047	0.0087	0.0062	0.0121
Maximum	0.0039	0.0051	0.0105	0.0187	0.0132	0.0234
Standard Deviation	0.0008	0.0008	0.0019	0.0030	0.0025	0.0033
Shares of Total	22%	24%	78%	76%	100%	100%
1971 - 1981						
Average Entropy	0.0023	0.0055	0.0087	0.0173	0.0110	0.0228
Minimum	0.0013	0.0031	0.0070	0.0128	0.0084	0.0172
Maximum	0.0042	0.0091	0.0115	0.0212	0.0156	0.0285
Standard Deviation	0.0010	0.0020	0.0015	0.0026	0.0022	0.0039
Shares of Total	21%	24%	79%	76%	100%	100%
1981 - 1984						
Average Entropy	0.0042	0.0095	0.0105	0.0205	0.0147	0.0300
Minimum	0.0041	0.0089	0.0080	0.0179	0.0120	0.0280
Maximum	0.0044	0.0100	0.0130	0.0230	0.0172	0.0319
Standard Deviation	0.0001	0.0008	0.0025	0.0036	0.0026	0.0028
Shares of Total	29%	32%	71%	68%	100%	100%

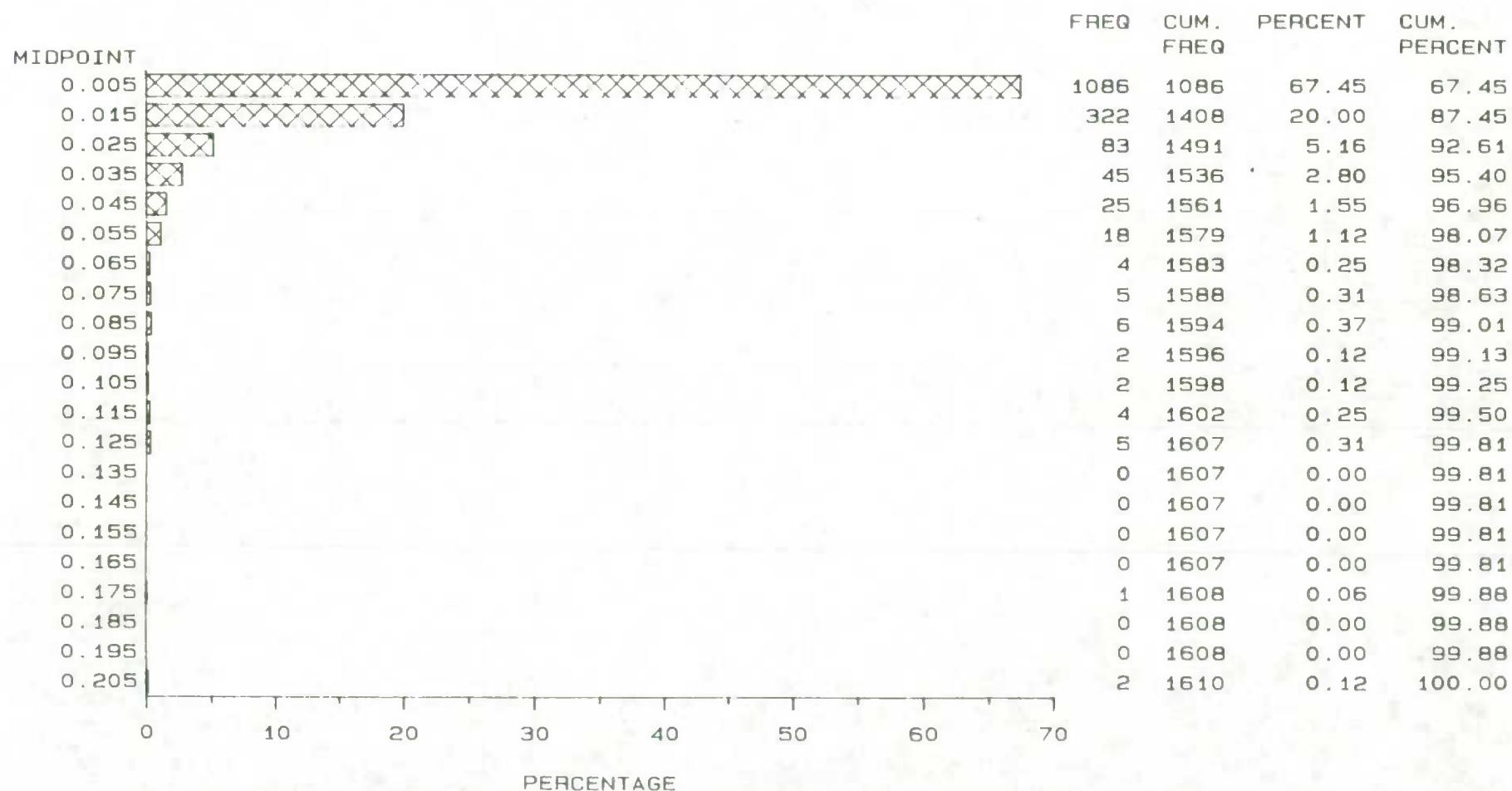
**Table 1B: Summary Statistics of Variability for the Current Price, L Level, Industrial Input Structure.**

	Between Industries		Within Industries		Total	
	1 year	2 year	1 year	2 year	1 year	2 year
1961 - 1971						
Average Entropy	0.0021	0.0042	0.0084	0.0149	0.0105	0.0191
Minimum	0.0014	0.0030	0.0057	0.0101	0.0073	0.0131
Maximum	0.0038	0.0055	0.0128	0.0201	0.0152	0.0256
Standard Deviation	0.0008	0.0009	0.0023	0.0032	0.0028	0.0038
Shares of Total	20%	22%	80%	78%	100%	100%
1971 - 1981						
Average Entropy	0.0036	0.0089	0.0139	0.0265	0.0176	0.0354
Minimum	0.0016	0.0053	0.0095	0.0194	0.0114	0.0248
Maximum	0.0073	0.0151	0.0312	0.0403	0.0352	0.0495
Standard Deviation	0.0017	0.0035	0.0064	0.0064	0.0070	0.0084
Shares of Total	21%	25%	79%	75%	100%	100%
1981 - 1984						
Average Entropy	0.0046	0.0105	0.0152	0.0309	0.0198	0.0414
Minimum	0.0027	0.0084	0.0105	0.0275	0.0132	0.0359
Maximum	0.0062	0.0126	0.0186	0.0343	0.0249	0.0469
Standard Deviation	0.0018	0.0030	0.0042	0.0048	0.0060	0.0078
Shares of Total	23%	25%	77%	75%	100%	100%

## GRAPH 1A

## PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

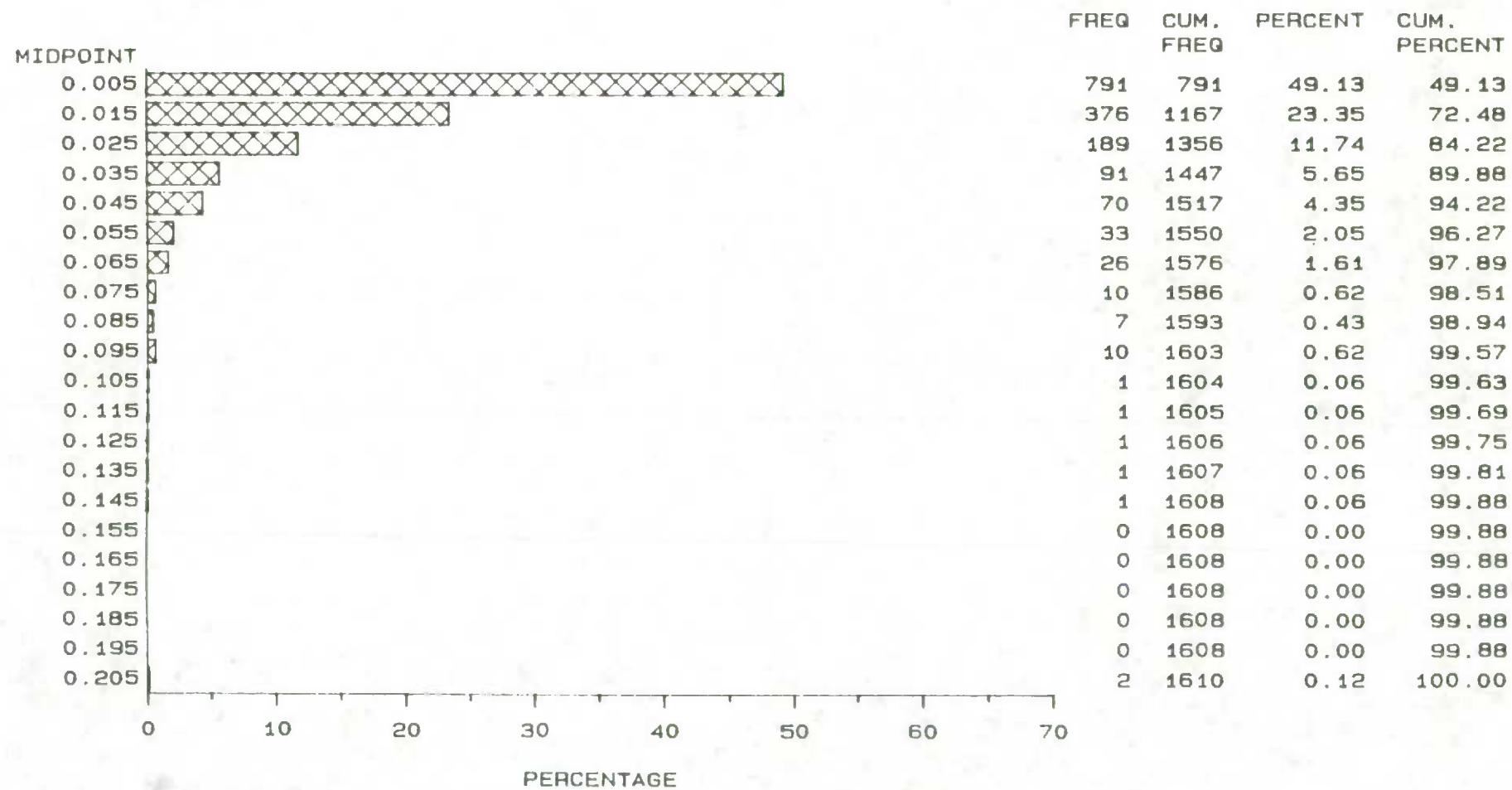
CORRESPONDING TO ONE YEAR TIME INTERVALS  
 FOR INDUSTRY INPUTS IN CONSTANT PRICES  
 FOR THE TIME SERIES 1961-1971.



GRAPH 1B

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

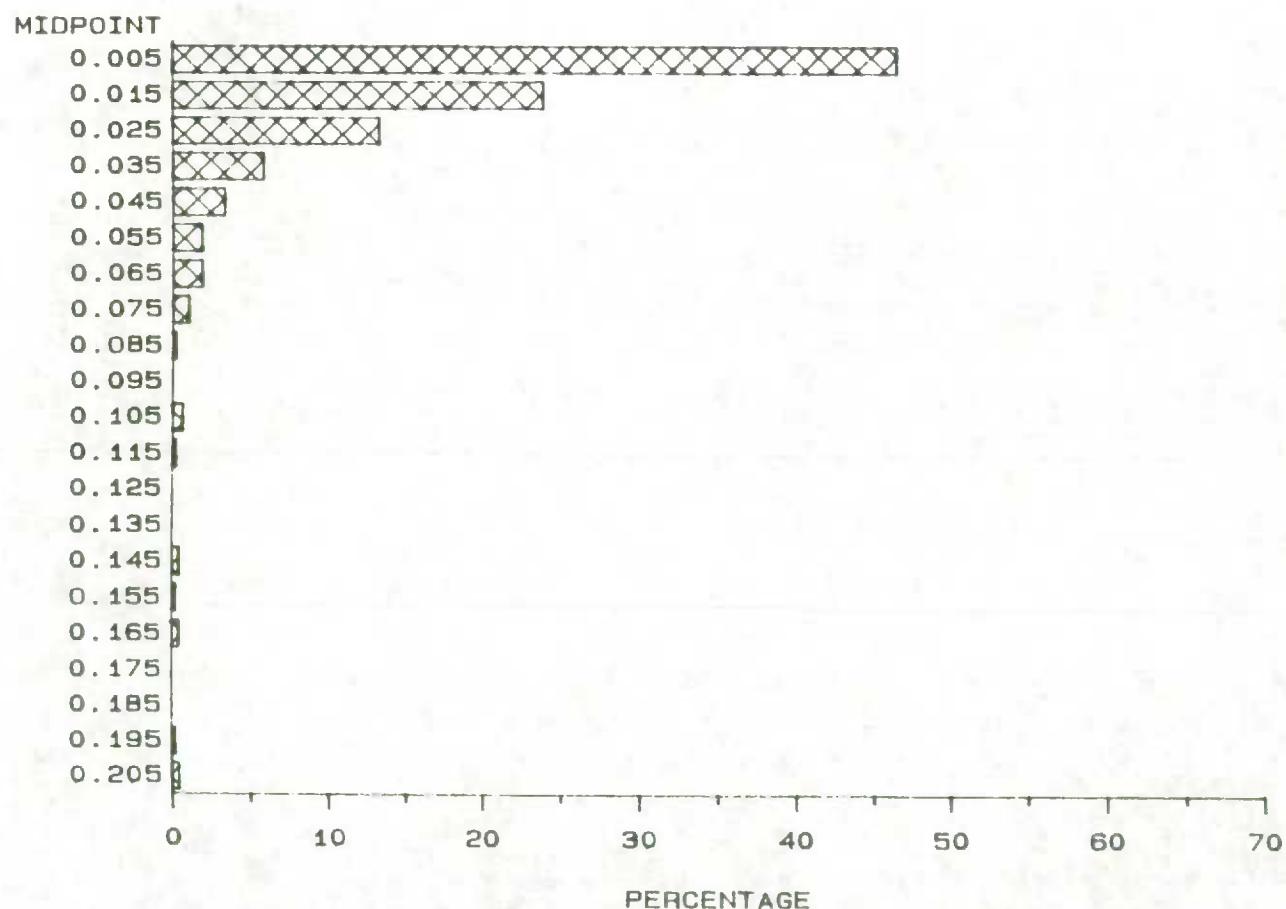
CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CONSTANT PRICES  
FOR THE TIME SERIES 1971-1981.



GRAPH 1C

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CONSTANT PRICES  
FOR THE TIME SERIES 1981-1984.

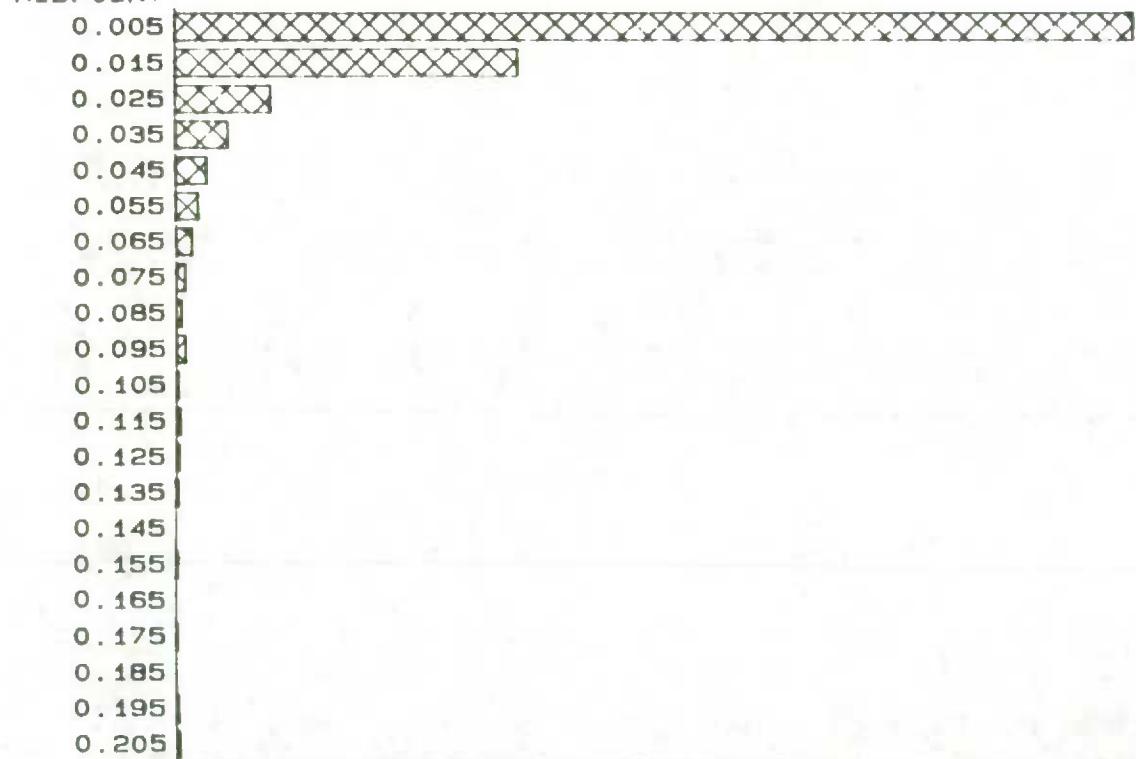


GRAPH 1D

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CURRENT PRICES  
FOR THE TIME SERIES 1961-1971.

MIDPOINT



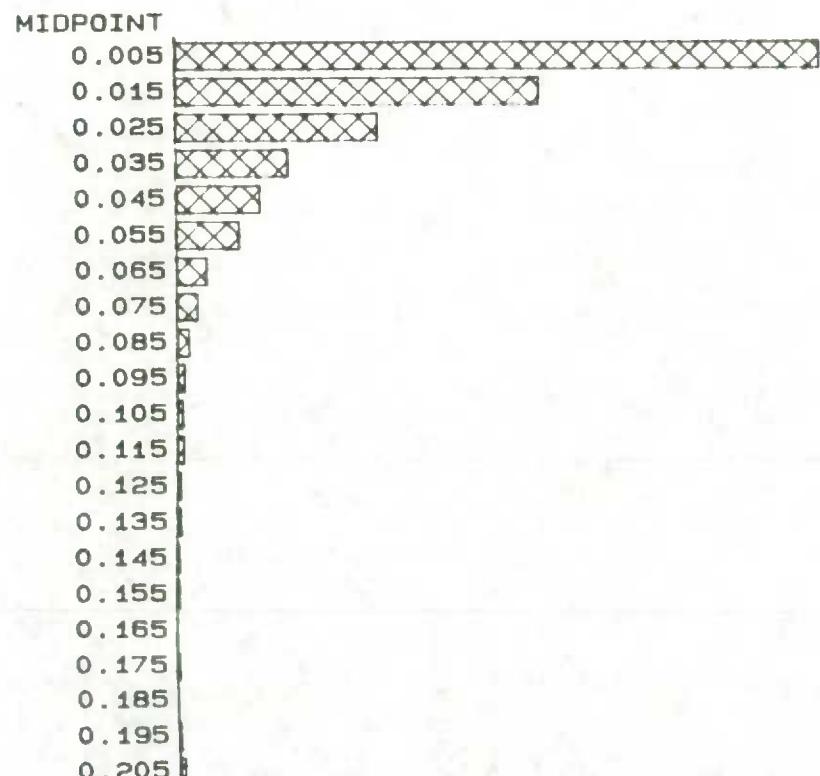
	FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
0.005	990	990	61.49	61.49
0.015	355	1345	22.05	83.54
0.025	99	1444	6.15	89.69
0.035	54	1498	3.35	93.04
0.045	32	1530	1.99	95.03
0.055	23	1553	1.43	96.46
0.065	16	1569	0.99	97.45
0.075	9	1578	0.56	98.01
0.085	5	1583	0.31	98.32
0.095	9	1592	0.56	98.88
0.105	2	1594	0.12	99.01
0.115	4	1598	0.25	99.25
0.125	3	1601	0.19	99.44
0.135	2	1603	0.12	99.57
0.145	0	1603	0.00	99.57
0.155	1	1604	0.06	99.63
0.165	0	1604	0.00	99.63
0.175	1	1605	0.06	99.69
0.185	0	1605	0.00	99.69
0.195	2	1607	0.12	99.81
0.205	3	1610	0.19	100.00

PERCENTAGE

GRAPH 1E

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CURRENT PRICES  
FOR THE TIME SERIES 1971-1981.



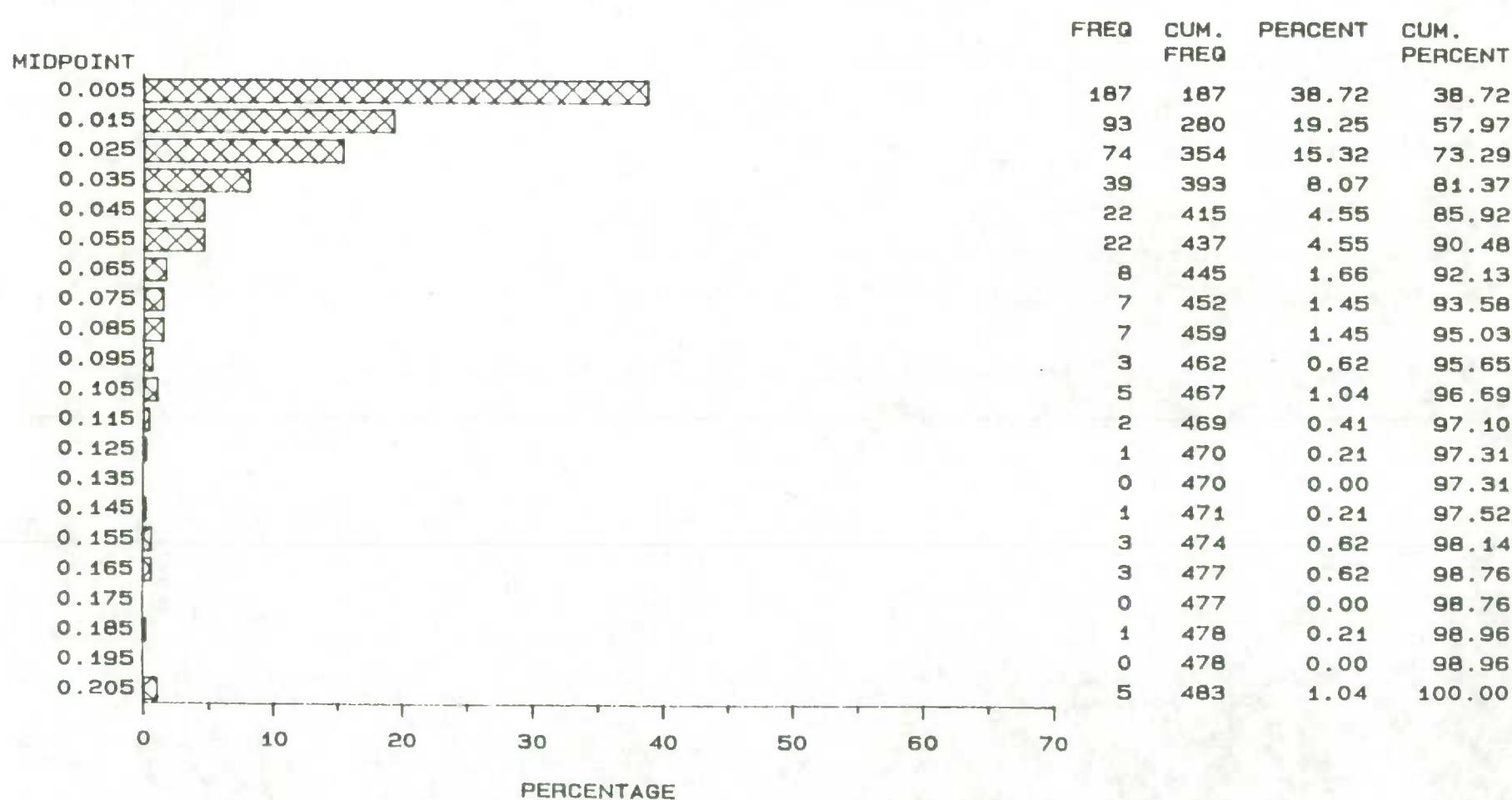
FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
663	663	41.18	41.18
374	1037	23.23	64.41
208	1245	12.92	77.33
116	1361	7.20	84.53
87	1448	5.40	89.94
65	1513	4.04	93.98
31	1544	1.93	95.90
21	1565	1.30	97.20
12	1577	0.75	97.95
7	1584	0.43	98.39
5	1589	0.31	98.70
6	1595	0.37	99.07
3	1598	0.19	99.25
3	1601	0.19	99.44
1	1602	0.06	99.50
1	1603	0.06	99.57
0	1603	0.00	99.57
1	1604	0.06	99.63
0	1604	0.00	99.63
1	1605	0.06	99.69
5	1610	0.31	100.00

PERCENTAGE

GRAPH 1F

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

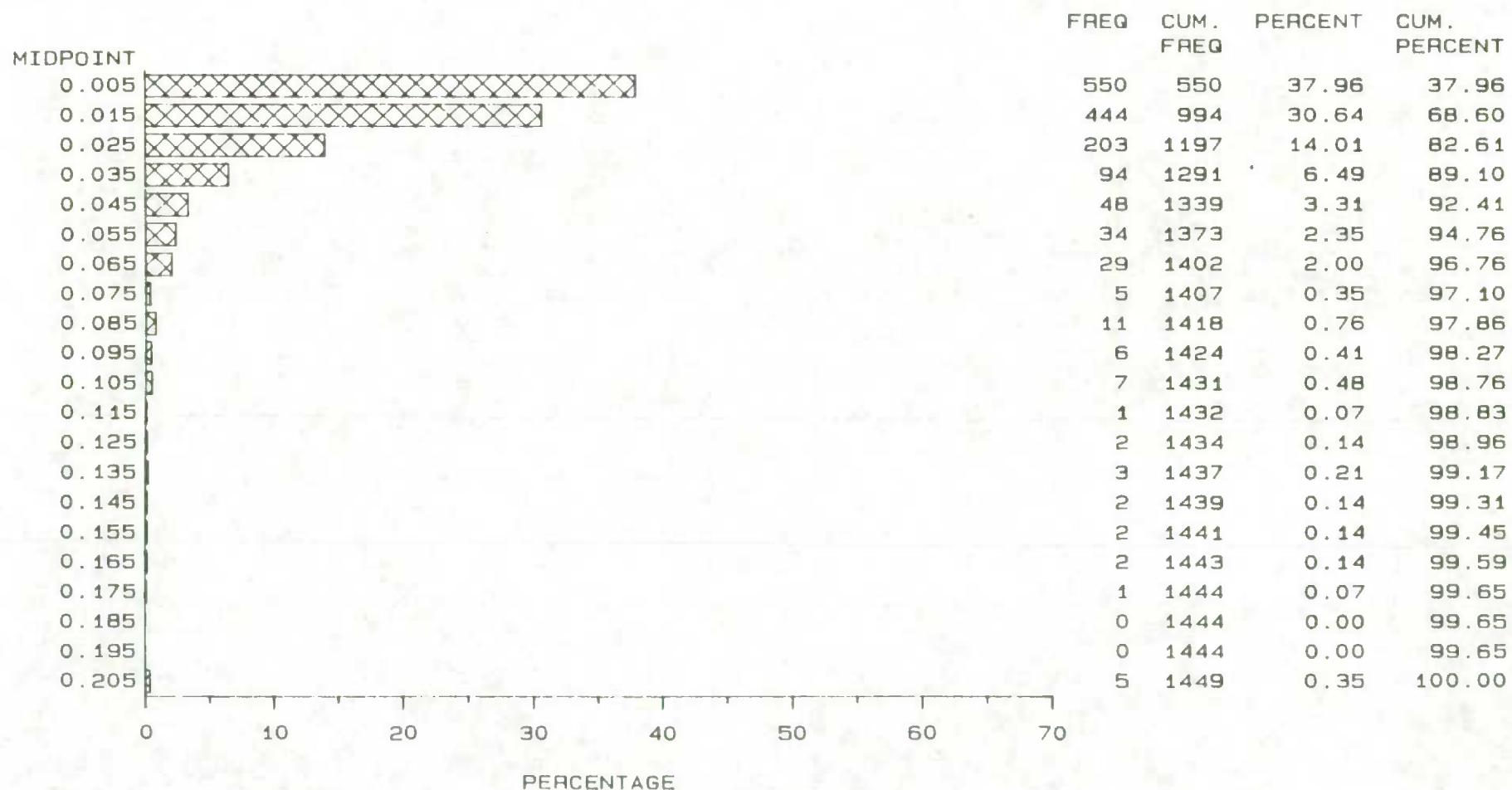
CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CURRENT PRICES  
FOR THE TIME SERIES 1981-1984.



## GRAPH 2A

## PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

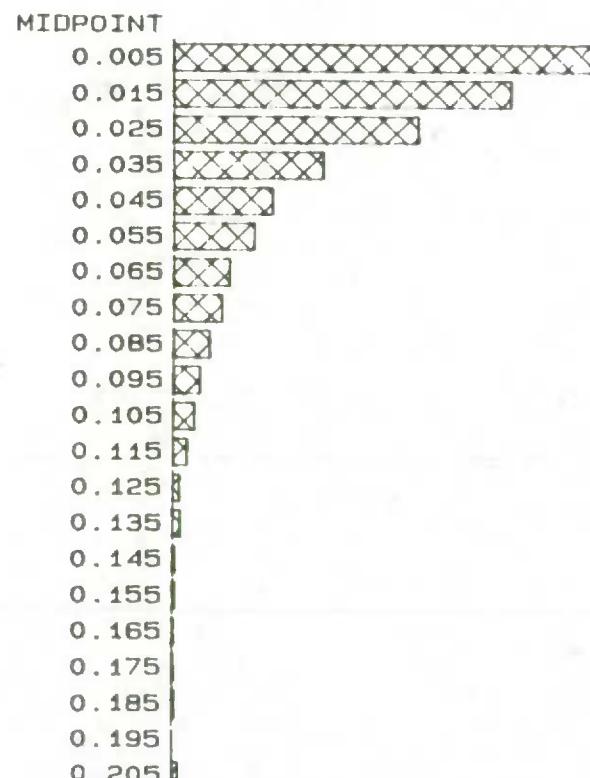
CORRESPONDING TO TWO YEAR TIME INTERVALS  
 FOR INDUSTRY INPUTS IN CONSTANT PRICES  
 FOR THE TIME SERIES 1961-1971.



GRAPH 2B

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CONSTANT PRICES  
FOR THE TIME SERIES 1971-1981.



	FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
	388	388	26.78	26.78
	313	701	21.60	48.38
	227	928	15.67	64.04
	139	1067	9.59	73.64
	92	1159	6.35	79.99
	75	1234	5.18	85.16
	52	1286	3.59	88.75
	45	1331	3.11	91.86
	34	1365	2.35	94.20
	25	1390	1.73	95.93
	20	1410	1.38	97.31
	13	1423	0.90	98.21
	6	1429	0.41	98.62
	7	1436	0.48	99.10
	2	1438	0.14	99.24
	2	1440	0.14	99.38
	1	1441	0.07	99.45
	1	1442	0.07	99.52
	2	1444	0.14	99.65
	0	1444	0.00	99.65
	5	1449	0.35	100.00

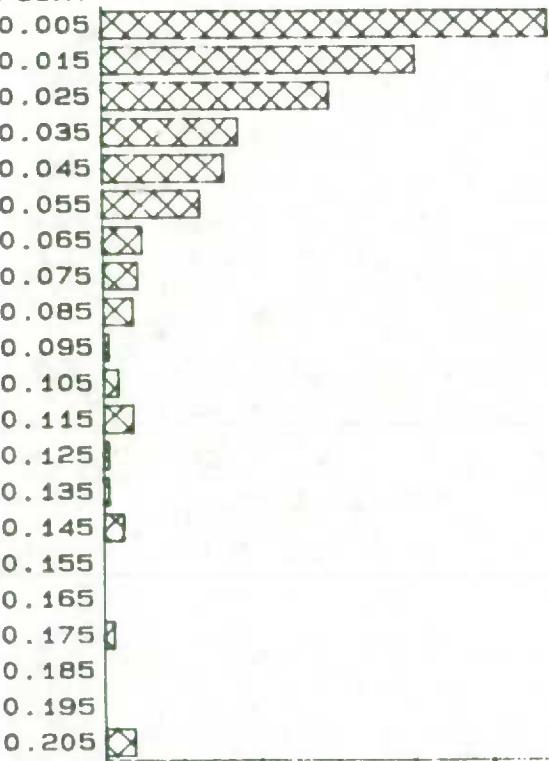
PERCENTAGE

GRAPH 2C

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CONSTANT PRICES  
FOR THE TIME SERIES 1981-1984.

MIDPOINT



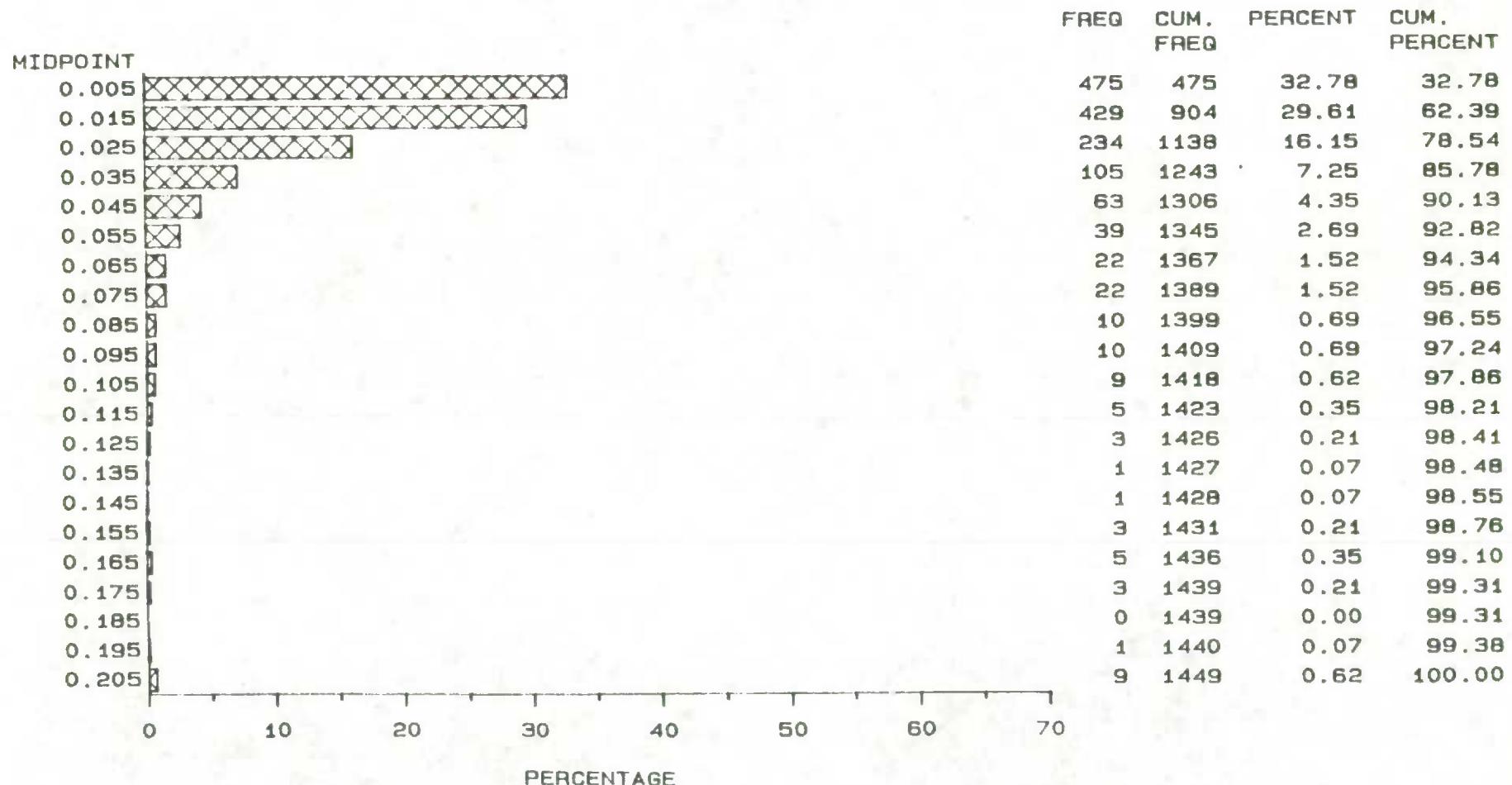
FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
92	92	28.57	28.57
65	157	20.19	48.76
47	204	14.60	63.35
28	232	8.70	72.05
25	257	7.76	79.81
20	277	6.21	86.02
8	285	2.48	88.51
7	292	2.17	90.68
6	298	1.86	92.55
1	299	0.31	92.86
3	302	0.93	93.79
6	308	1.86	95.65
1	309	0.31	95.96
1	310	0.31	96.27
4	314	1.24	97.52
0	314	0.00	97.52
0	314	0.00	97.52
2	316	0.62	98.14
0	316	0.00	98.14
0	316	0.00	98.14
6	322	1.86	100.00

PERCENTAGE

GRAPH 2D

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

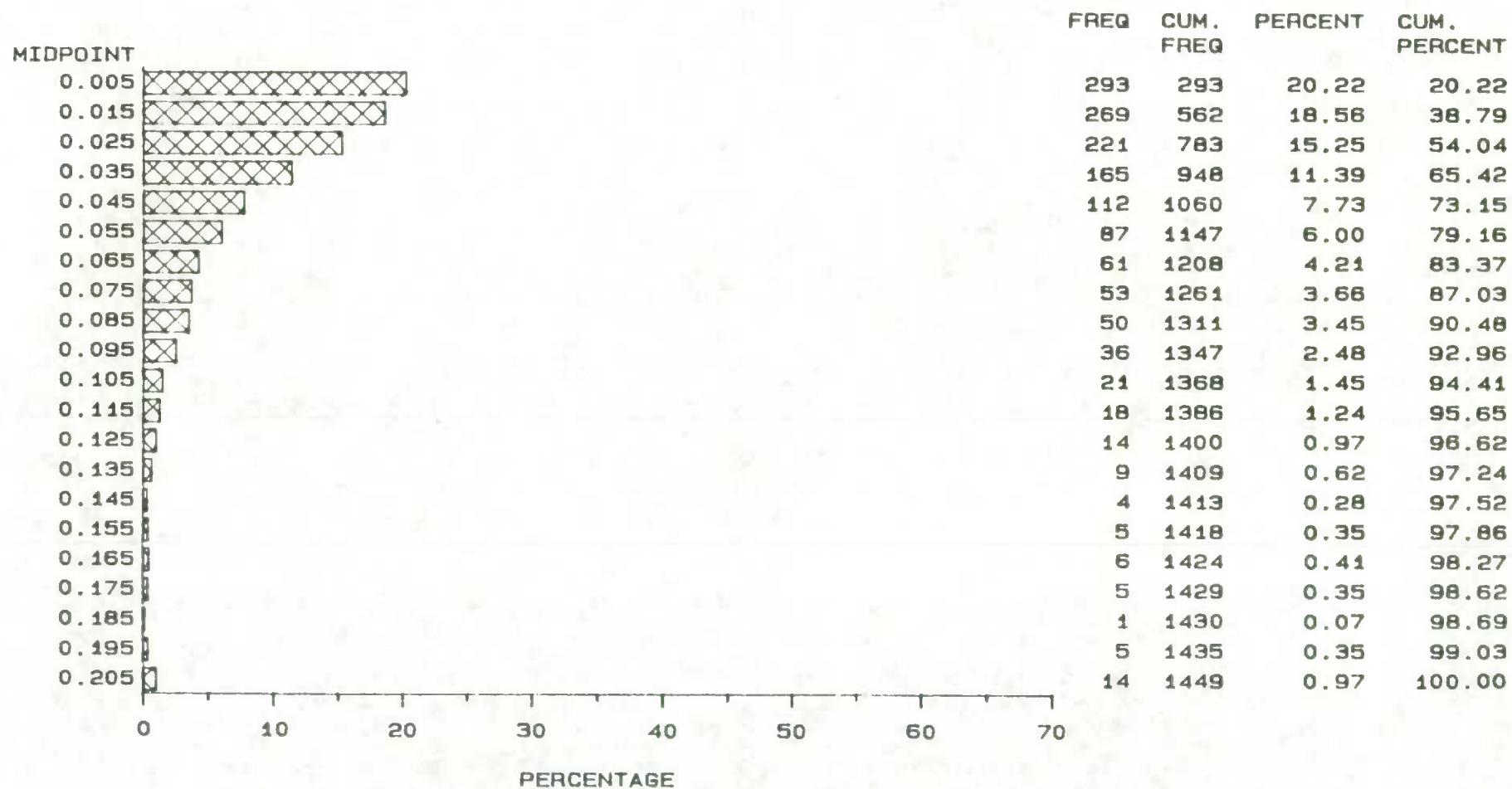
CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CURRENT PRICES  
FOR THE TIME SERIES 1961-1971.



## GRAPH 2E

## PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

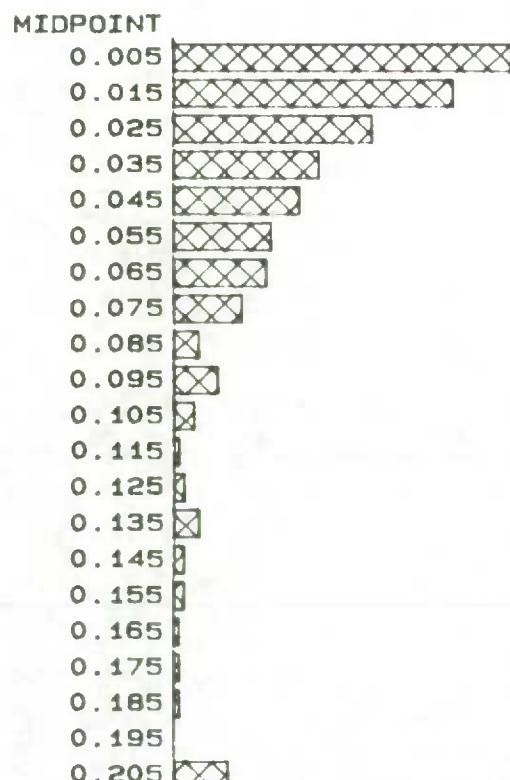
CORRESPONDING TO TWO YEAR TIME INTERVALS  
 FOR INDUSTRY INPUTS IN CURRENT PRICES  
 FOR THE TIME SERIES 1971-1981.



GRAPH 2F

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPIES

CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR INDUSTRY INPUTS IN CURRENT PRICES  
FOR THE TIME SERIES 1981-1984.



	FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
	70	70	21.74	21.74
	58	128	18.01	39.75
	41	169	12.73	52.48
	30	199	9.32	61.80
	26	225	8.07	69.88
	20	245	6.21	76.09
	19	264	5.90	81.99
	14	278	4.35	86.34
	5	283	1.55	87.89
	9	292	2.80	90.68
	4	296	1.24	91.93
	1	297	0.31	92.24
	2	299	0.62	92.86
	5	304	1.55	94.41
	2	306	0.62	95.03
	2	308	0.62	95.65
	1	309	0.31	95.96
	1	310	0.31	96.27
	1	311	0.31	96.58
	0	311	0.00	96.58
	11	322	3.42	100.00

PERCENTAGE

For both time horizons and the three periods covered, the entropy measures for constant price input structures appear to be quite small, and lower than for current price input structures. This can be seen by comparing the results reported in Table 1A with those of Table 1B. Table 1B provides a summary of entropy results, in the same format as Table 1A, that relates to the current price input structure. The differences are rather small for the sixties, quite large over the seventies, and rapidly decreasing at the beginning of the eighties. This phenomenon will be explained later.

As with current price structures, we may observe a definite trend for the entropy associated with constant price structures to approximately double when going from a one year to a two year time span. We also observe, as before, a similar split between the within and between components of overall entropy, the former accounting for the largest share. These results can be visualized on the accompanying graphs which give the frequency distribution of industry entropy estimates, for each of the current and constant price input structures, for both time horizons, and for the three periods covered (Graph 1A to Graph 2F). From the histograms, it can be seen that there are very few outstanding cases of rapidly evolving structures in constant prices. Appendix 2 provides further detail on an industry basis.

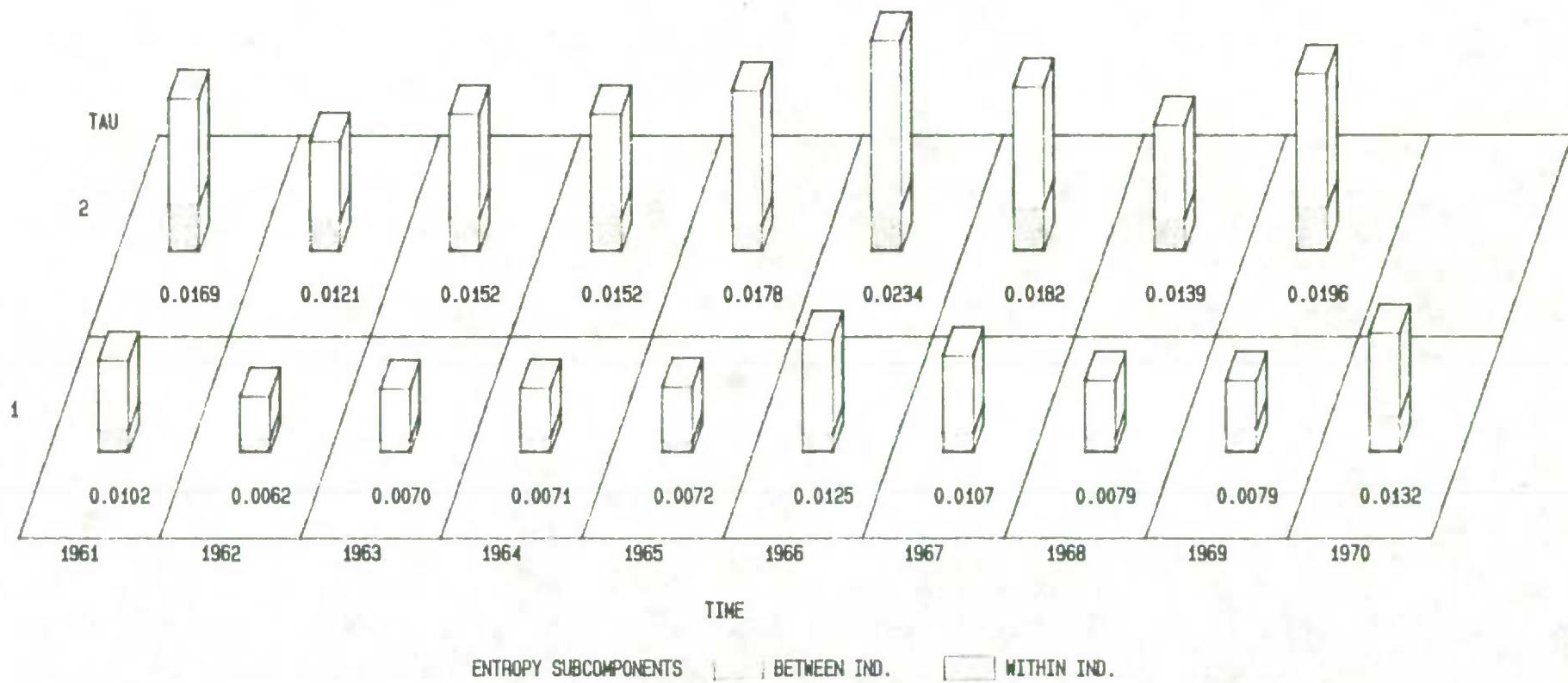
## 2. The time profile of variability

The time profile of overall variability for the constant price input structures is depicted on Graph 3. In parallel with the previous progress report, the overall variability has been split into its between-industries and its within-industries subcomponents. As previously found, the latter component accounts, by far, for the largest share of structural changes in all years.

The time profile shows greater structural volatility in the seventies and beginning of the eighties than in the sixties. These differences, however, are less dramatic than they were for the current price structures. The cyclical pattern is also somewhat different with

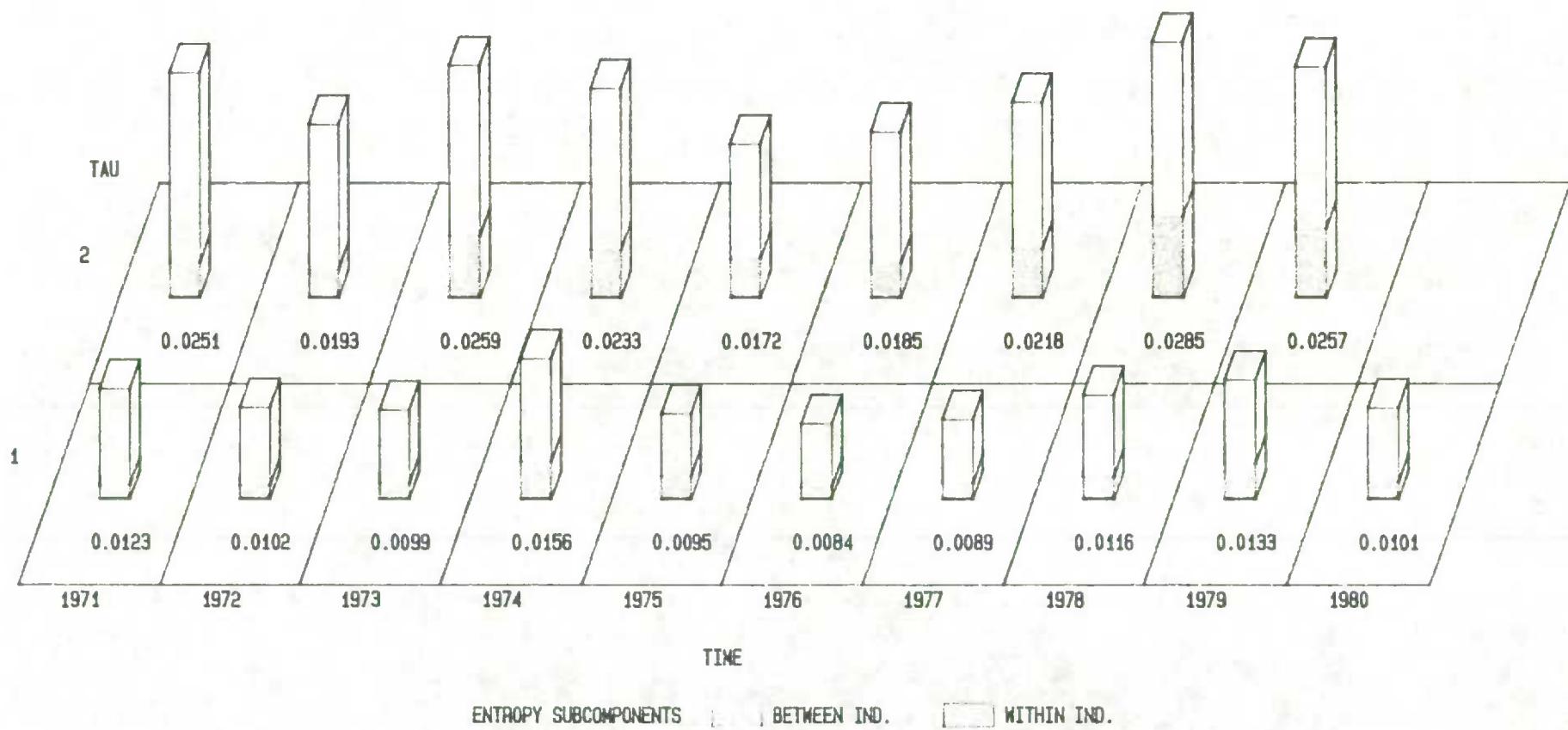
GRAPH 3

ENTROPY RESULTS FROM AN INDUSTRY DECOMPOSITION OF INPUTS  
FOR THE CONSTANT PRICE TIME SERIES 1961-1971



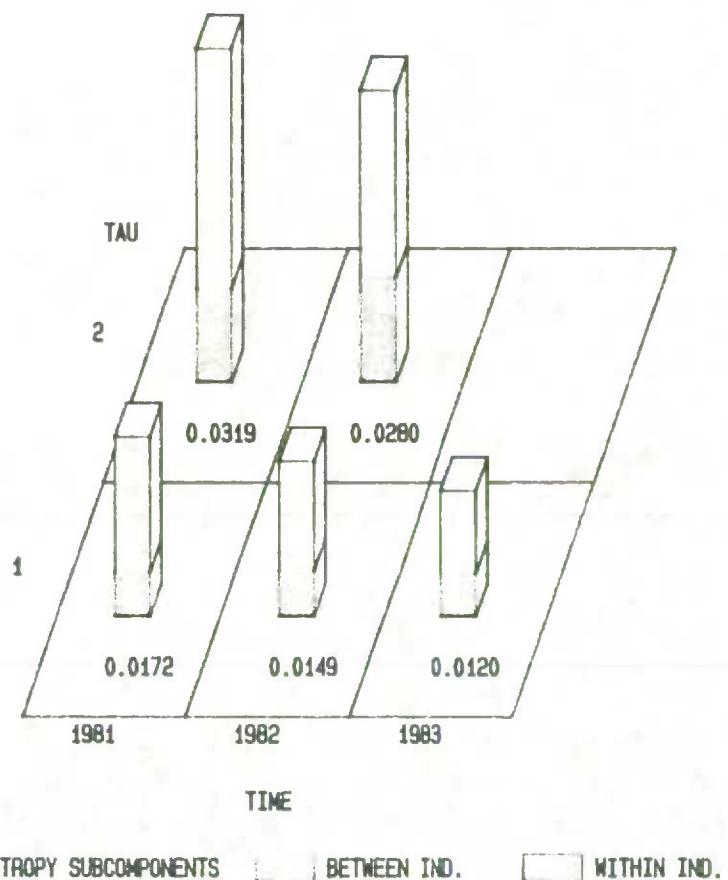
GRAPH 3 (CONTINUED)

ENTROPY RESULTS FROM AN INDUSTRY DECOMPOSITION OF INPUTS  
FOR THE CONSTANT PRICE TIME SERIES 1971-1981



GRAPH 3 (CONTINUED)

ENTROPY RESULTS FROM AN INDUSTRY DECOMPOSITION OF INPUTS  
FOR THE CONSTANT PRICE TIME SERIES 1981-1984



noticeable changes with respect to the current price structures in 1980 when the latter reached their peak change (1979 for the two year time span) and in 1972 - 1973 for the two year time horizon. The relationship with the business cycle of the Canadian economy now appears to be quite tenuous.

### 3. Variability of the Input Structures Across Industries.

The decomposition property of the entropy measure allows a great deal of flexibility in selecting a breakdown of a given component structure into substructures. We now use this property to aggregate the detailed individual industry entropy results in the appropriate way so as to obtain entropy estimates that correspond to four major industry structures. These four structures are composed of: (1) primary industries; (2) manufacturing industries; (3) construction industries; and (4) service industries, respectively<sup>5</sup>. This process can be viewed equivalently, in theory, as the decomposition of the total variability of the constant price input structure into subcomponents that relate to the four broad industry groups mentioned.

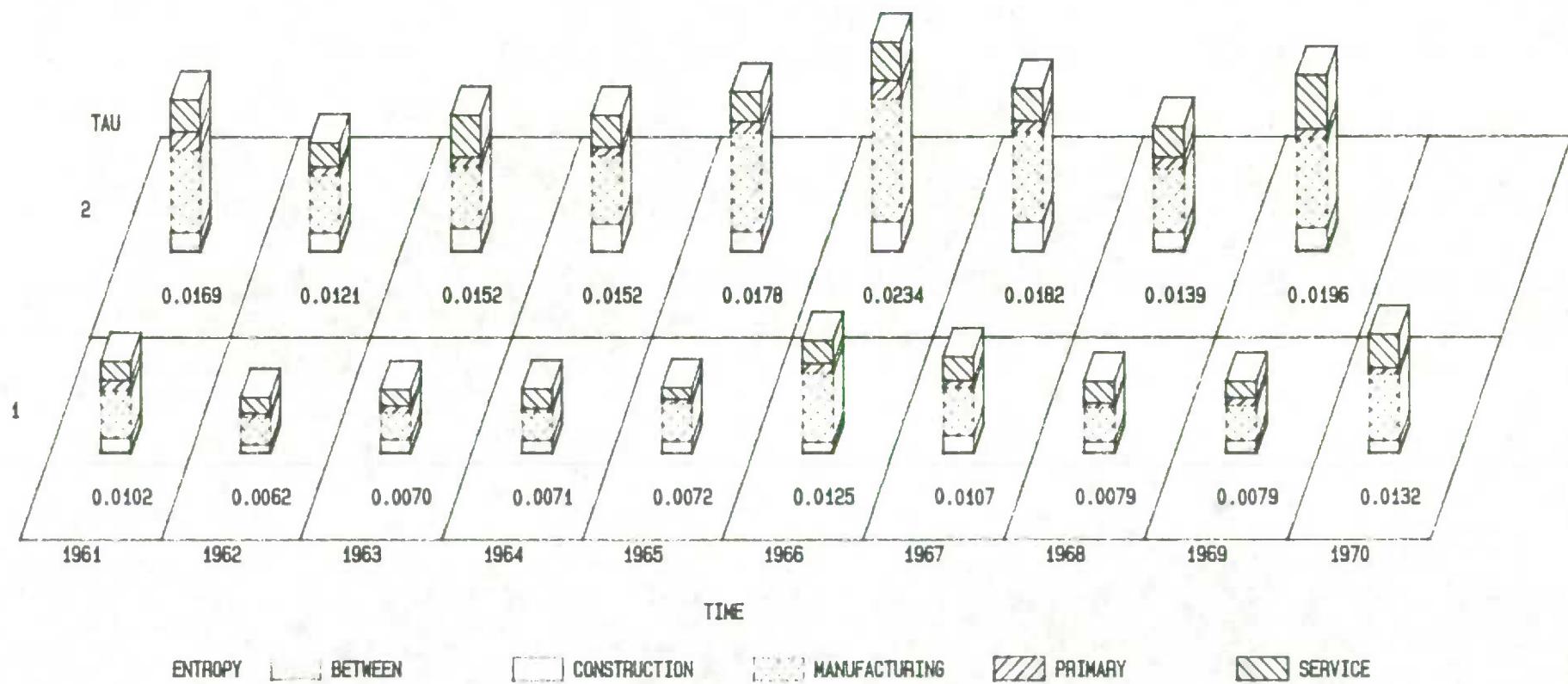
Graph 4 portrays the decomposition of total entropy of constant price inputs, through time, into the weighted entropy contributions of each group as well as that component of total entropy indicative of the variability between these groups. As was the case with current price inputs, it is apparent from the graph that the manufacturing industries account for the largest share of the total variability of constant price inputs. The earlier rationale used to explain this result applies once again. Unweighted average entropies, corresponding to the major group decomposition of constant price inputs are reported in Table 2 for each of the three decades.

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5. The associated L level industry codes corresponding to these groupings are: primary 1-13; manufacturing 14-108; construction 109-117; services 118-161.

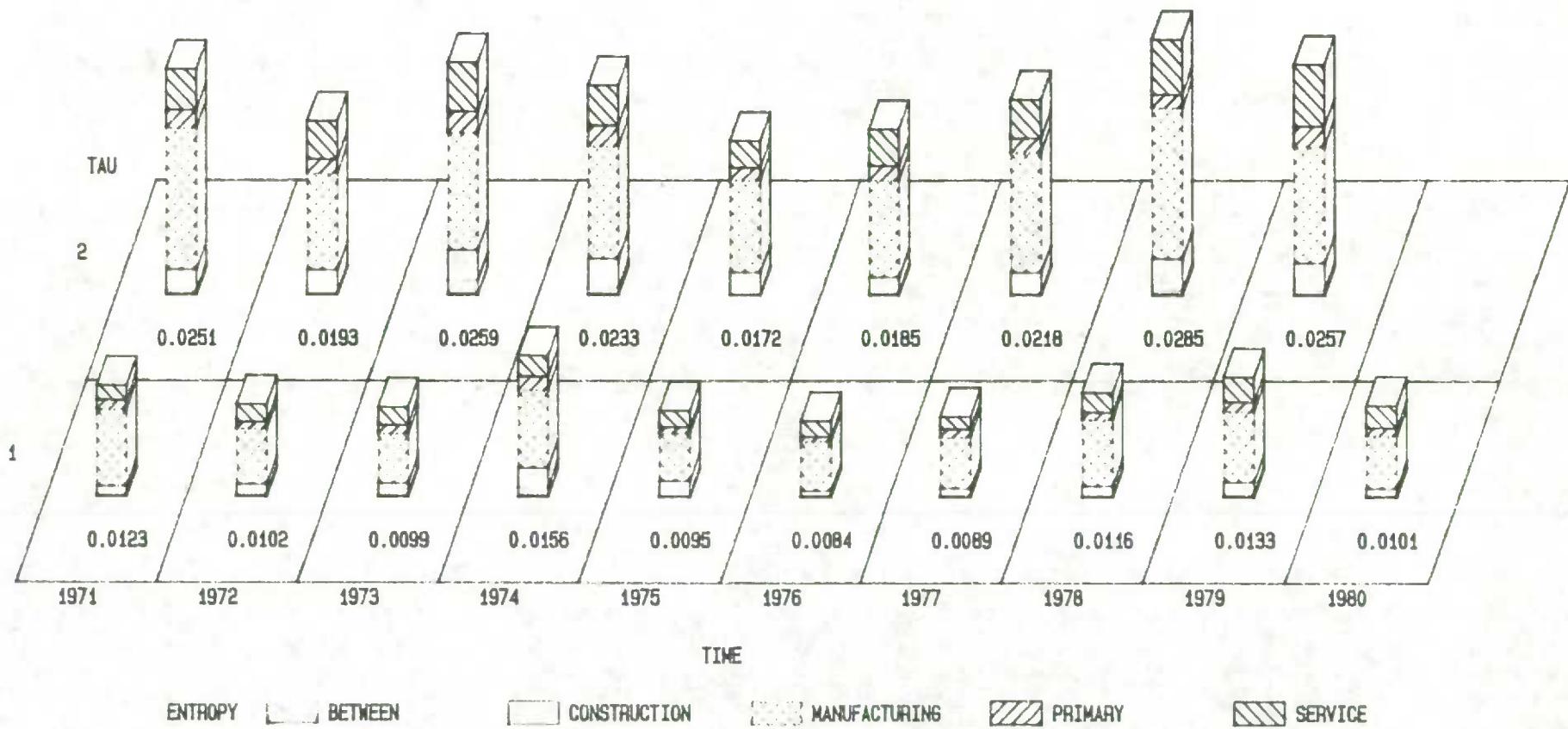
GRAPH 4

DECOMPOSITION OF INPUTS INTO FOUR MAJOR INDUSTRY GROUPS  
(WEIGHTED WITHIN AND BETWEEN COMPONENTS OF ENTROPY)  
FOR THE CONSTANT PRICE TIME SERIES 1961-1971



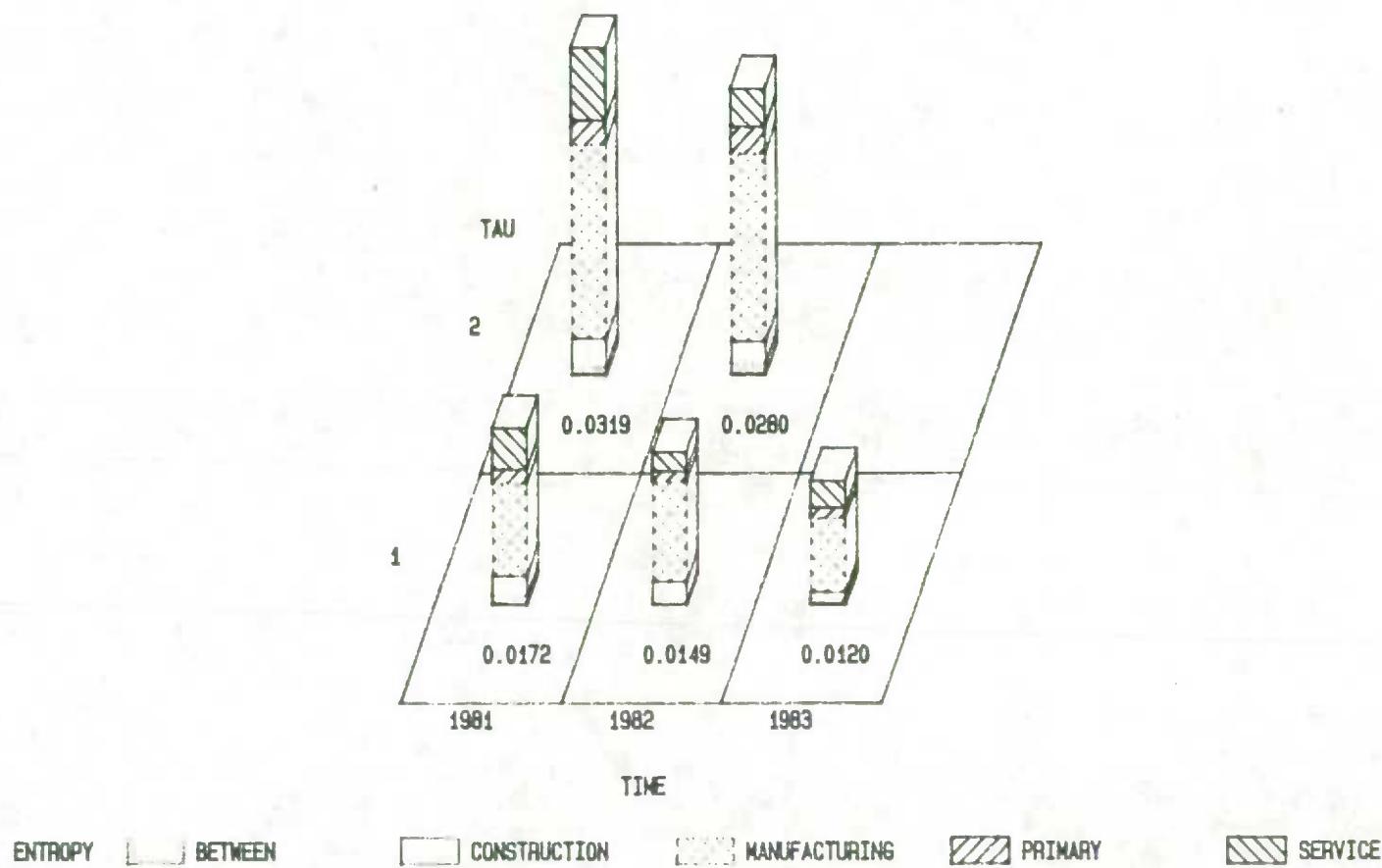
GRAPH 4 (CONTINUED)

DECOMPOSITION OF INPUTS INTO FOUR MAJOR INDUSTRY GROUPS  
(WEIGHTED WITHIN AND BETWEEN COMPONENTS OF ENTROPY)  
FOR THE CONSTANT PRICE TIME SERIES 1971-1981



GRAPH 4 (CONTINUED)

DECOMPOSITION OF INPUTS INTO FOUR MAJOR INDUSTRY GROUPS  
(WEIGHTED WITHIN AND BETWEEN COMPONENTS OF ENTROPY)  
FOR THE CONSTANT PRICE TIME SERIES 1981-1984



**Table 2: Average Raw and Weighted Entropies of Constant Dollar Inputs for Major Industry Groupings, at the L Level of Aggregation**

Industry Group	Average Group Weights	One Year Interval				Two Year Interval			
		Within Group	Between Industries Within Group	Total	Weighted Contribution	Within Group	Between Industries Within Group	Total	Weighted Contribution
<b>1961 - 1971</b>									
Primary	0.09	0.0054	0.0024	0.0078	0.0007	0.0105	0.0047	0.0152	0.0013
Manufacturing	0.39	0.0096	0.0026	0.0122	0.0047	0.0180	0.0054	0.0234	0.0091
Construction	0.10	0.0098	0.0028	0.0126	0.0013	0.0189	0.0047	0.0236	0.0023
Services	0.43	0.0043	0.0009	0.0052	0.0022	0.0074	0.0018	0.0091	0.0039
Between Groups	-	-	-	-	0.0001	-	-	-	0.0003
<b>1971 - 1981</b>									
Primary	0.07	0.0090	0.0034	0.0124	0.0009	0.0184	0.0072	0.0257	0.0018
Manufacturing	0.35	0.0161	0.0030	0.0191	0.0066	0.0304	0.0071	0.0375	0.0129
Construction	0.10	0.0082	0.0033	0.0115	0.0012	0.0178	0.0085	0.0263	0.0027
Services	0.48	0.0034	0.0009	0.0043	0.0020	0.0075	0.0025	0.0100	0.0048
Between Groups	-	-	-	-	0.0002	-	-	-	0.0005
<b>1981 - 1984</b>									
Primary	0.11	0.0061	0.0019	0.0100	0.0011	0.0146	0.0075	0.0221	0.0025
Manufacturing	0.34	0.0186	0.0070	0.0256	0.0087	0.0358	0.0187	0.0545	0.0188
Construction	0.10	0.0117	0.0047	0.0164	0.0016	0.0198	0.0062	0.0260	0.0024
Services	0.45	0.0053	0.0010	0.0062	0.0028	0.0104	0.0015	0.0119	0.0054
Between Groups	-	-	-	-	0.0005	-	-	-	0.0009

A quick comparison of the graph corresponding to the major group decomposition that was produced for current price inputs to its counterpart, which was produced for constant price inputs, leads to one immediate distinction. In particular, considering the one year interval, for the year 1980, the former graph depicts an extraordinarily large contribution of primary industries to the total variability of inputs in current prices whereas the latter graph does not corroborate this finding. As mentioned, however, in the previous progress report, some of the changes in the current price input structure over the period 1980 to 1981 were purely statistical and related to the Agriculture and Related Activities industry. Since these statistical accidents should have had a comparable impact on both the current and constant price input structures, we were prompted to investigate the matter further. For this purpose, all of the corresponding observations for which the entropy estimates exceeded 0.2 nits, based on the current price structure were examined for the estimates based on the constant price structure.

Through this analysis, it was established that the constant price input structure of the Agriculture and Related Activities industry in 1971 prices for the year 1981 in contrast to the corresponding current price structure, had not accounted for imputed intra industry transactions between the subsectors of Livestock and Fieldcrop. This explains, totally, the low entropy value obtained for the constant price input structure, which exhibits complete continuity with the previous years' input structure. The statistical change was nevertheless found to have been introduced in the new 1981 constant price input-output tables. Resultingly, we have two different constant price input structures for that industry, one in 1971 prices and the other in 1981 prices, the latter being consistent with the current price input structure.

All other cases investigated were similar in both current and constant prices. One important difference should, however, be highlighted. The constant price input structure does not contain a breakdown of value added into its components as is the case for the current price input structure. From Table 3 of the previous report, however, we know that the operating surplus component of value added (commodity 602) was

occasionally accountable for large structural changes. These structural changes do not emerge in constant prices, and account partly for the differences between the current and the constant price variability. All other differences are attributable to relative price changes to which we turn in the next section.

#### 4. Assessing price stability

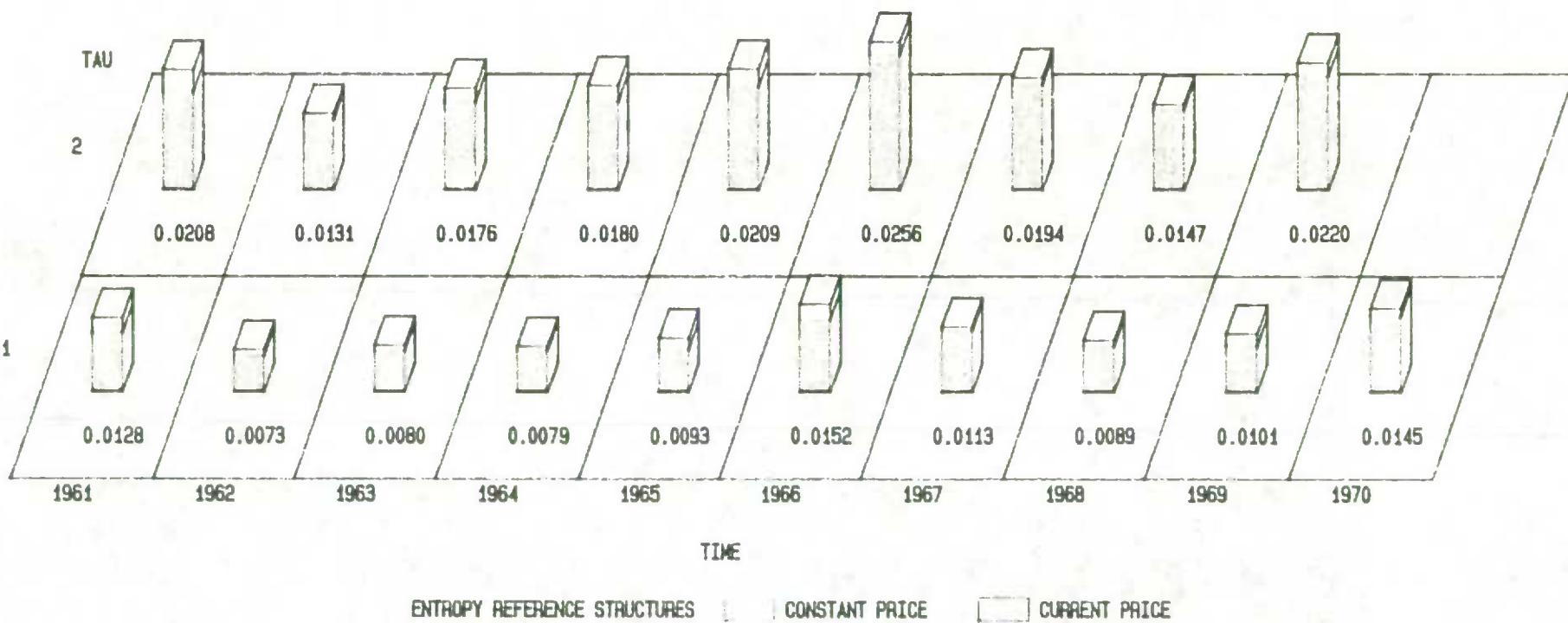
As explained above and in Appendix 1, the major benefit that is gained from the assessment of the variability of industries' constant price input structure is through the comparison of results with the corresponding results based on current price structures. Except for the factors discussed in the previous section, any differences found may be attributed to changing relative prices. These changes in relative prices may either compensate for or reinforce the changes in the technical coefficients so that, on a priori grounds, the current price input structure may be either more or less stable than the constant price input structure.

It may be argued, on theoretical grounds, that changes in technical coefficients are necessarily induced by technical progress, changes in the output mix and changing relative prices. The input structure will nevertheless not adjust to changing relative prices instantaneously. The time required for the substitution process to work itself out may extend over many years. If this is the case, then we should expect to find that constant price input structures are more stable over the short run than the current price structures. Also if, as expected, quantities adjust in an opposite direction to the price changes, then, over longer time span, the constant price structures may exhibit more variability than the current price structures, if the price elasticity of demand is sufficiently high.

Looking at Graph 5, we may observe that these a priori expectations are satisfied over short time spans of one and two years. The graph depicts the entropy corresponding to the constant price structure by the blue box while the green box depicts the difference between the current and the

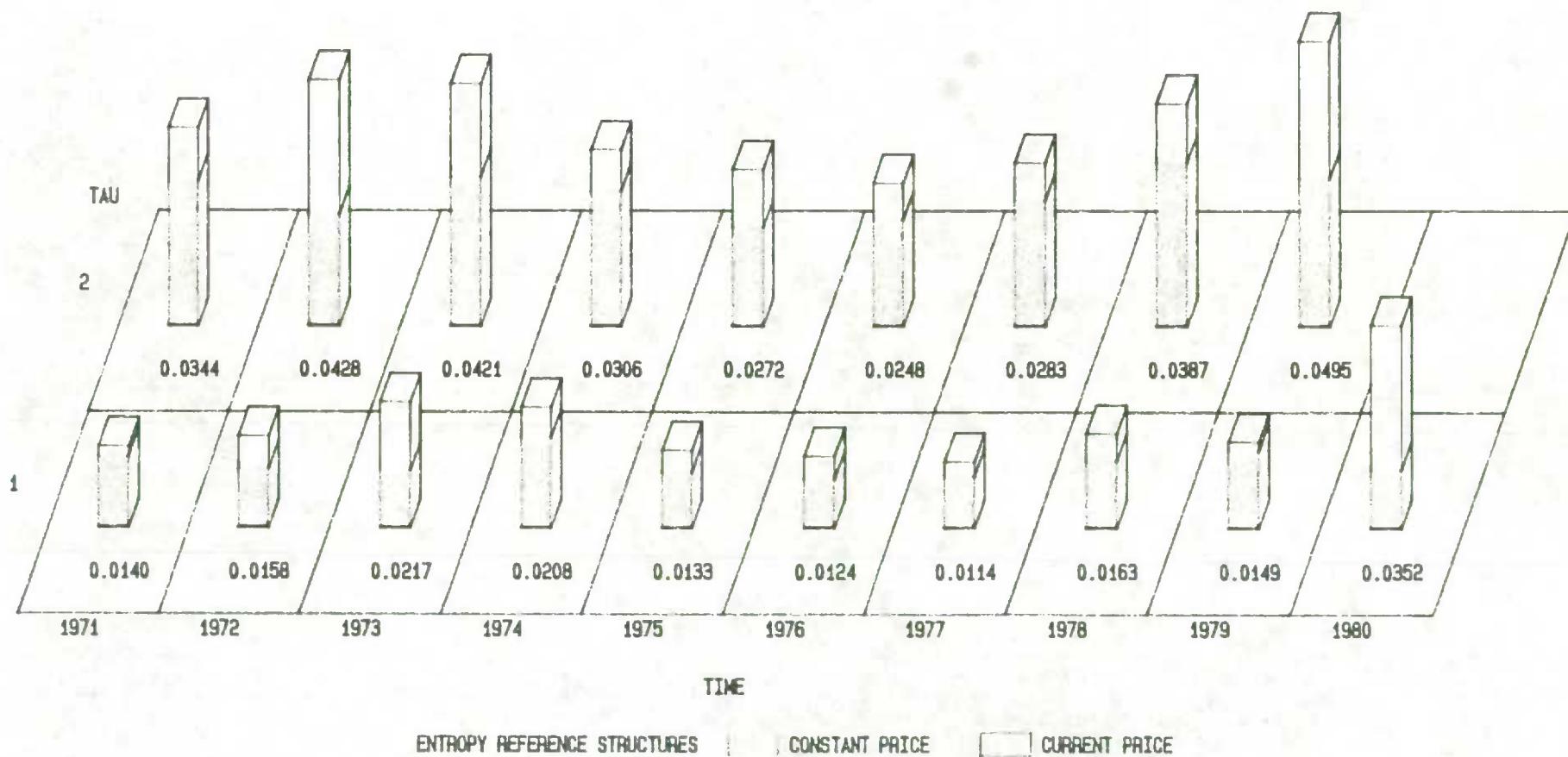
GRAPH 5

OVERLAY OF ENTROPY RESULTS FOR CURRENT AND CONSTANT PRICE INPUT STRUCTURES.  
FOR THE TIME SERIES 1961-1971



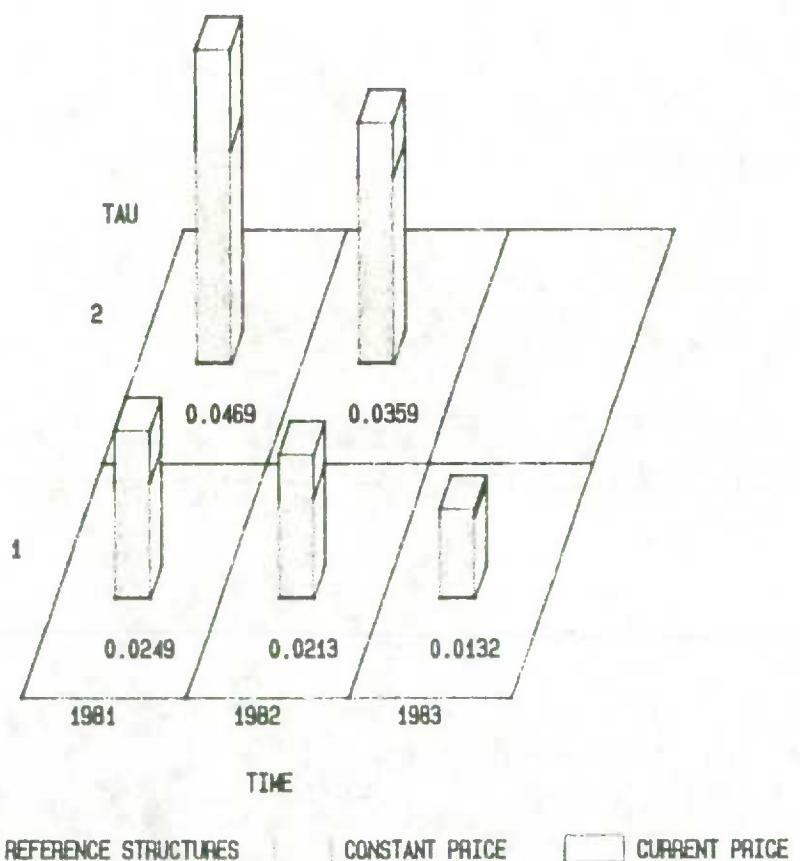
GRAPH 5 (CONTINUED)

OVERLAY OF ENTROPY RESULTS FOR CURRENT AND CONSTANT PRICE INPUT STRUCTURES.  
FOR THE TIME SERIES 1971-1981



GRAPH 5 (CONTINUED)

OVERLAY OF ENTROPY RESULTS FOR CURRENT AND CONSTANT PRICE INPUT STRUCTURES.  
FOR THE TIME SERIES 1981-1984



constant price structures. In the three periods covered here, this difference is always positive for all industries taken together. In other words, the overall variability of current price inputs always exceeds that of constant price inputs for any given time comparison. It does occur, however, for individual industry structures, that the current price input structure is more stable than the constant price input structure. These cases can be identified in Appendix 3 where detailed results at the industry level are given.

In order to produce Appendix 3, observations were formulated as the observed absolute differences between the corresponding pairs of industry entropy estimates that relate to the contrasting current and constant price input structures. These differences were arbitrarily designated to be positive (negative) in value if the entropy estimate corresponding to the current (constant) price structure was found to be larger than its counterpart for the constant (current) price structure. Two separate tests were then carried out in order to determine the statistical significance of the observed differences: the t-test for paired observations, and the signed rank test (a non-parametric alternative). The observations forming a given sample were associated with a common industry, time period, and interval of comparison. The appropriate one-sided test hypothesis was specified, in each test instance, only after the observed value of the test statistic had been obtained. This procedure enabled us to determine, not only whether there are any significant differences between the respective entropy estimates for current and constant price industry input structures, but also to make inferences about their direction.

From the results in Appendix 3, it is immediately apparent that, for the majority of industries, significant differences between the respective variability estimates for current and constant price input structures are exhibited, for at least one of the three time periods. In fact, there are only 35 industries for which no significant differences were detected, for the one year time interval. The corresponding figure for the two year time interval is 38. We conclude from this that changes in relative prices, which occurred at some point during the 23 year time

interval, were at least partially responsible for changes in individual industry's current price input structures in more than 75% of all industries. In fact, almost one third of all industries appear to have modified their input structures, to some extent, as a result of changes in relative prices in both the 1961-1971 decade, as well as in the 1971-1981 decade. It should also be recognized, at this point, that strictly due to the small sample sizes which are associated with the 1981-1984 period relative to the first two periods, differences were far less likely to have been deemed significant even if the observed differences were subjectively considered to be large.

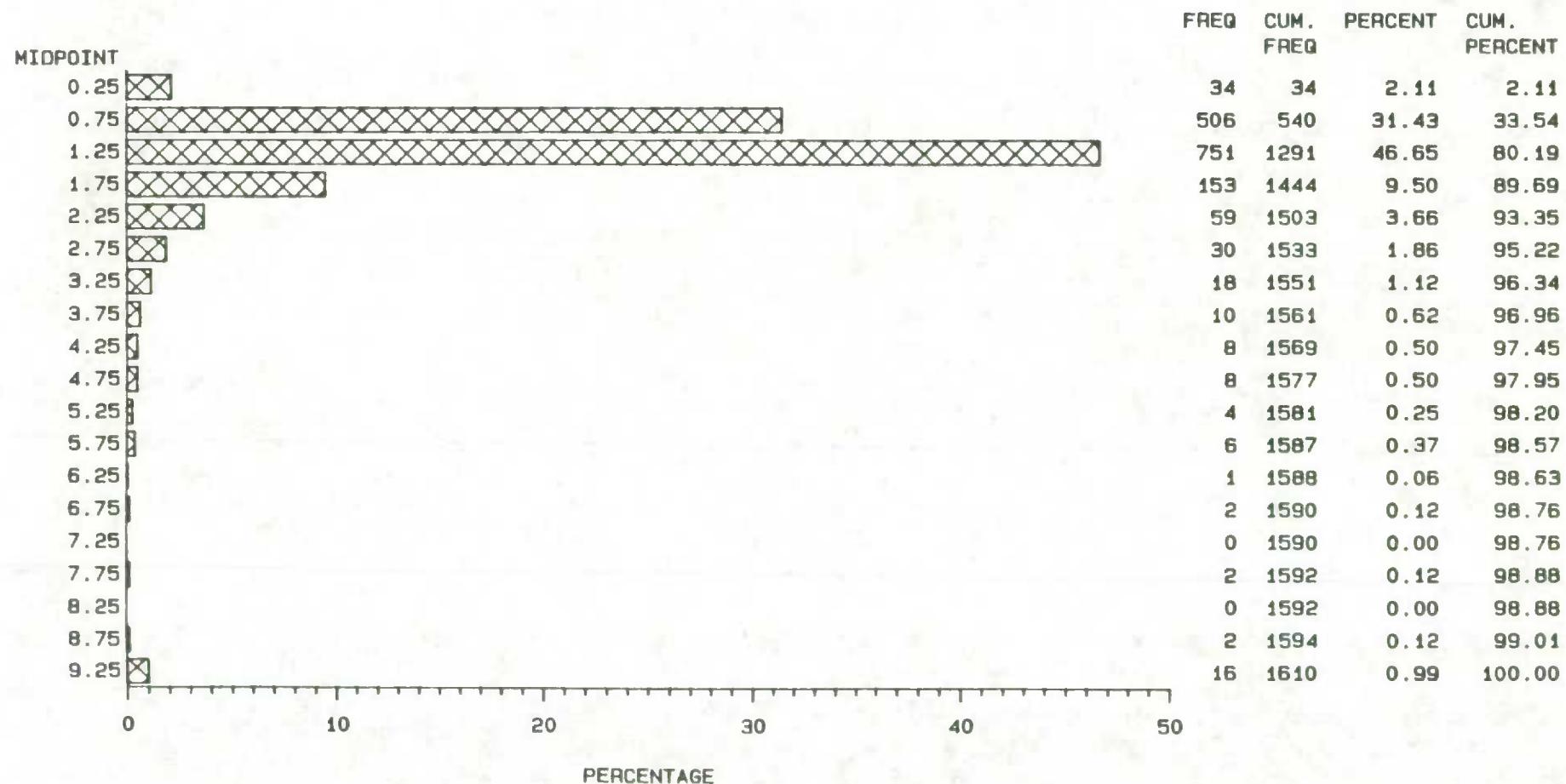
Amongst all of the test results reported in Appendix 3, very few would suggest that the variability over time of an industry's constant price input structure was stronger than the variability of that industry's current price input structure, in any of the three time periods. In other words, most of the significant differences that were found were positive; only 9 industries for the one year interval and 10 industries for the two year interval were reported to have any significant negative differences. As mentioned earlier in the report, an industry that shows a significant negative difference indicates that the industry's input quantities shifted in such a way as to more than offset the changes in relative prices. Therefore, this may be an indication that, for most industries, either the price elasticity of demand is not sufficiently high, or, the time lag involved for input quantities to adjust in response to changes in relative prices is longer than those time intervals considered, to result in a relatively more volatile constant price structure.

We now present the contrast between the respective entropy results for the current and constant price structures from another perspective.

The frequency of cases for which the ratio between the respective variability estimates corresponding to current and constant price inputs is less than one, at the industry level, appears in Graph 6 and 7 for respective time horizons of one and two years. From these graphs, it can be seen, that in a majority of cases, the current price structures are more volatile than the constant price structures. But it can also be

GRAPH 6A

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS  
 CORRESPONDING TO ONE YEAR TIME INTERVALS  
 FOR THE TIME SERIES 1961-1971

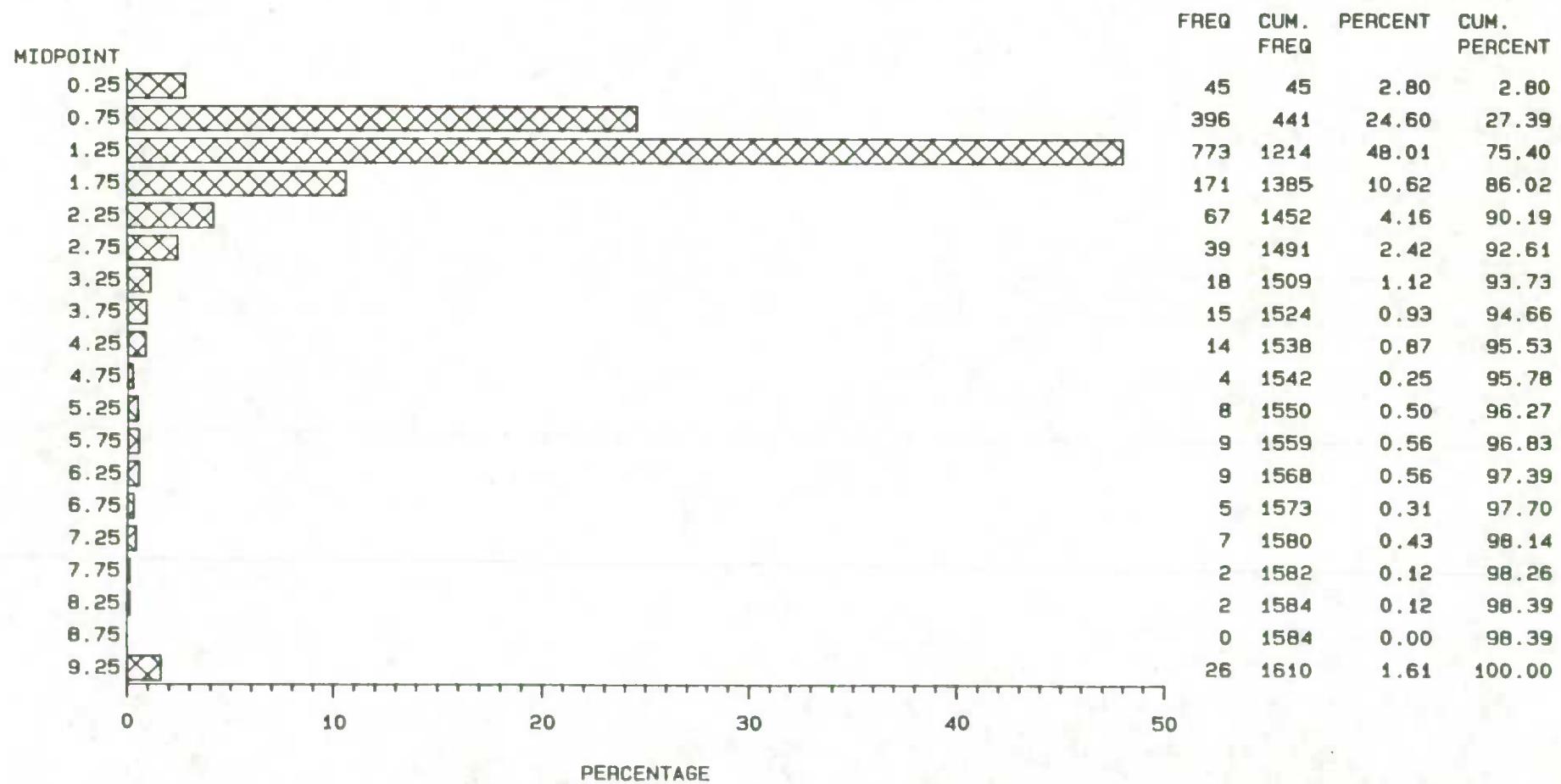


\* FOR ANY INDUSTRY  $J$ , RATIO $J$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $J$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $J$

GRAPH 6B

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR THE TIME SERIES 1971-1981

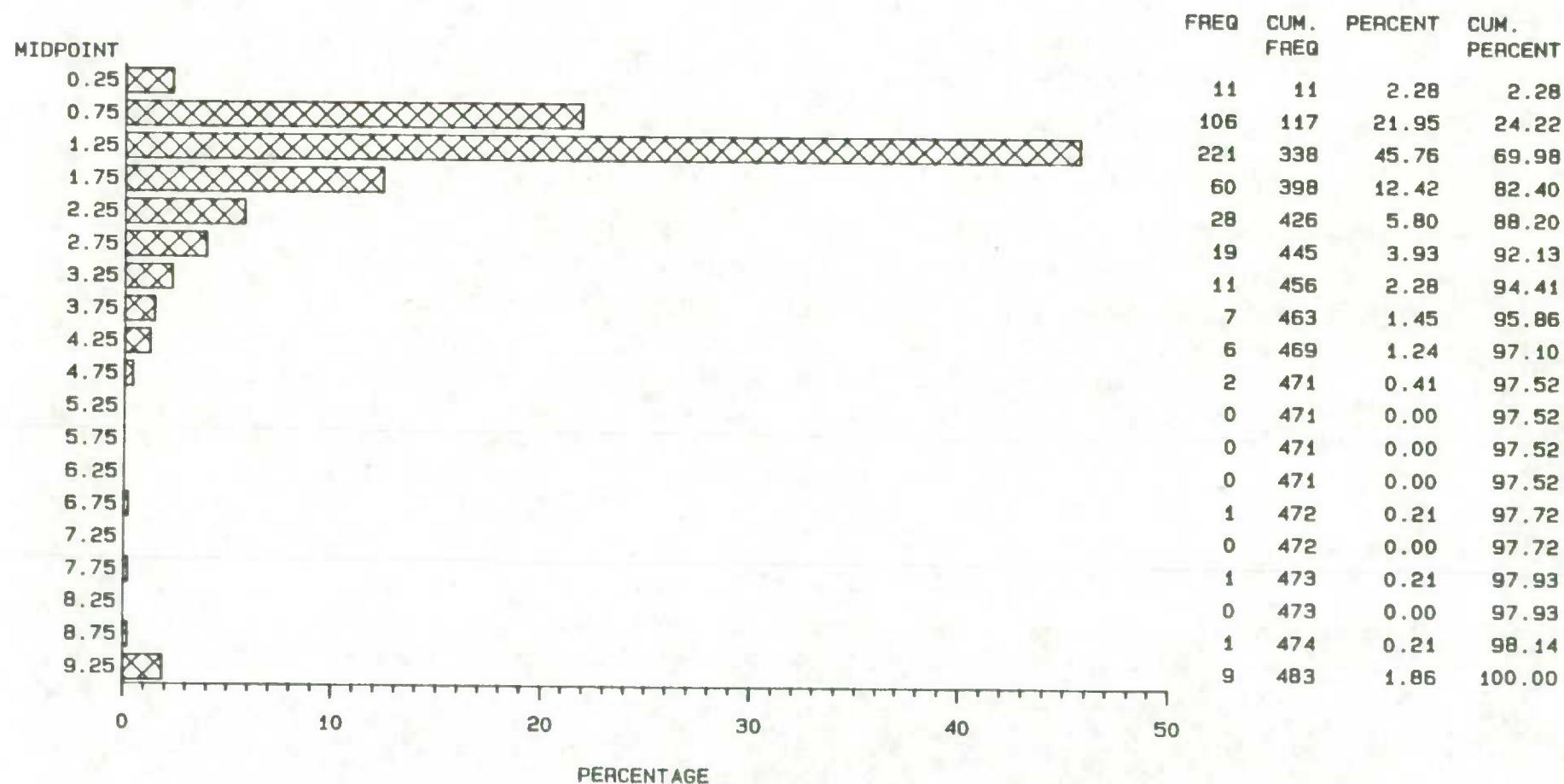


\* FOR ANY INDUSTRY  $J$ , RATIO $J$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $J$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $J$

GRAPH 6C

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

CORRESPONDING TO ONE YEAR TIME INTERVALS  
FOR THE TIME SERIES 1981-1984

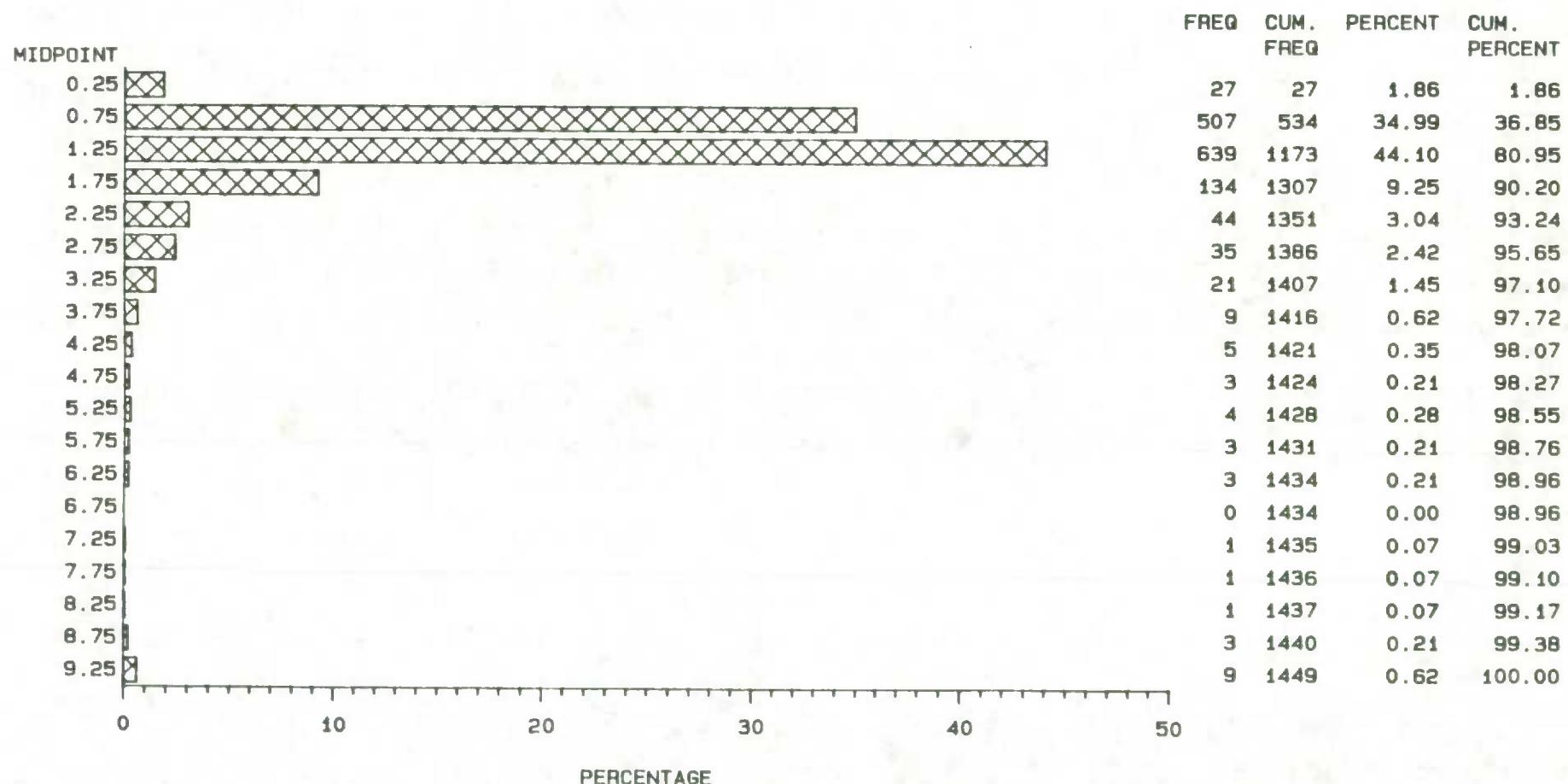


\* FOR ANY INDUSTRY  $j$ , RATIO $j$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $j$

GRAPH 7A

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR THE TIME SERIES 1961-1971

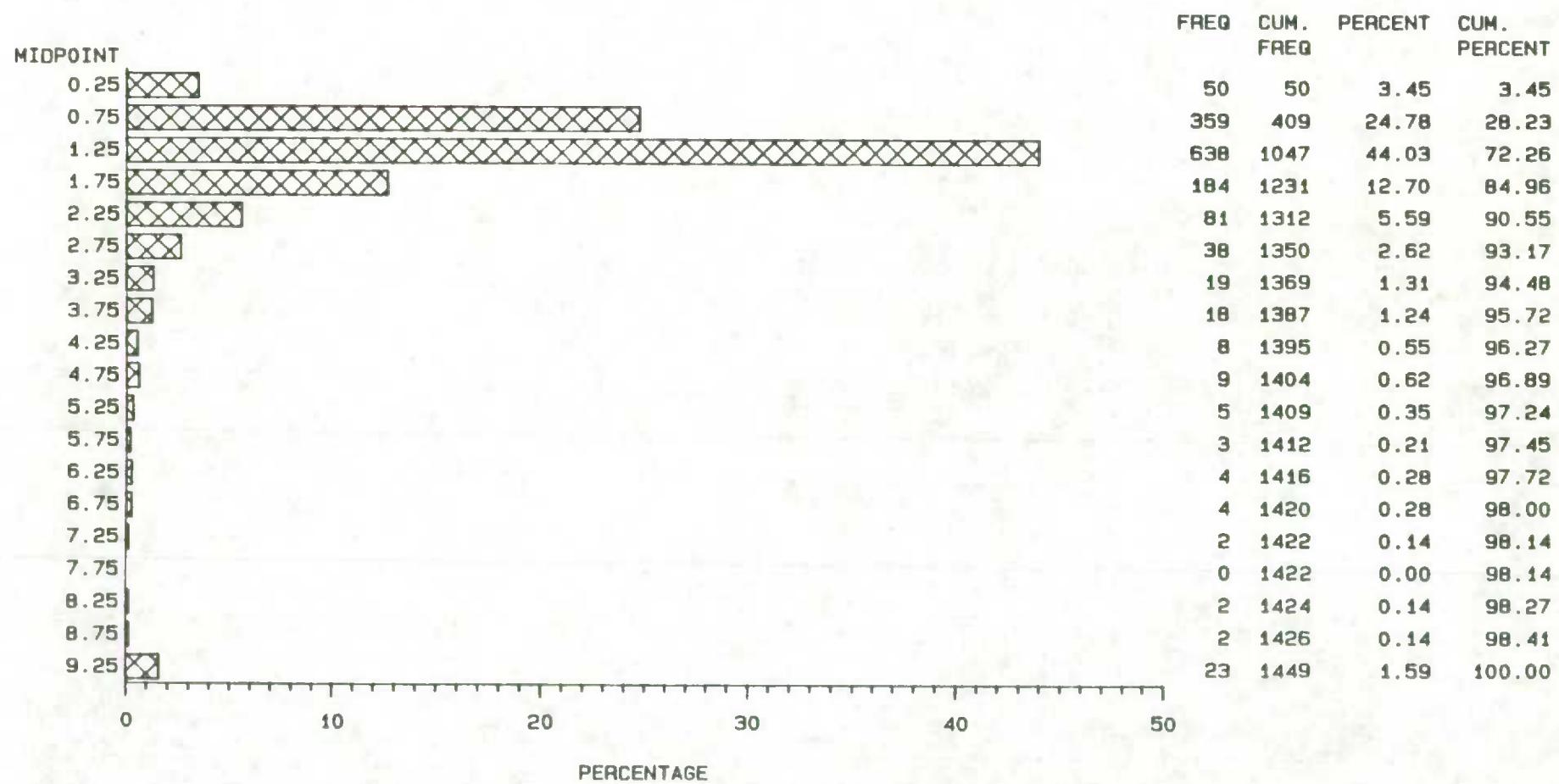


\* FOR ANY INDUSTRY  $j$ , RATIO = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $j$

GRAPH 7B

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

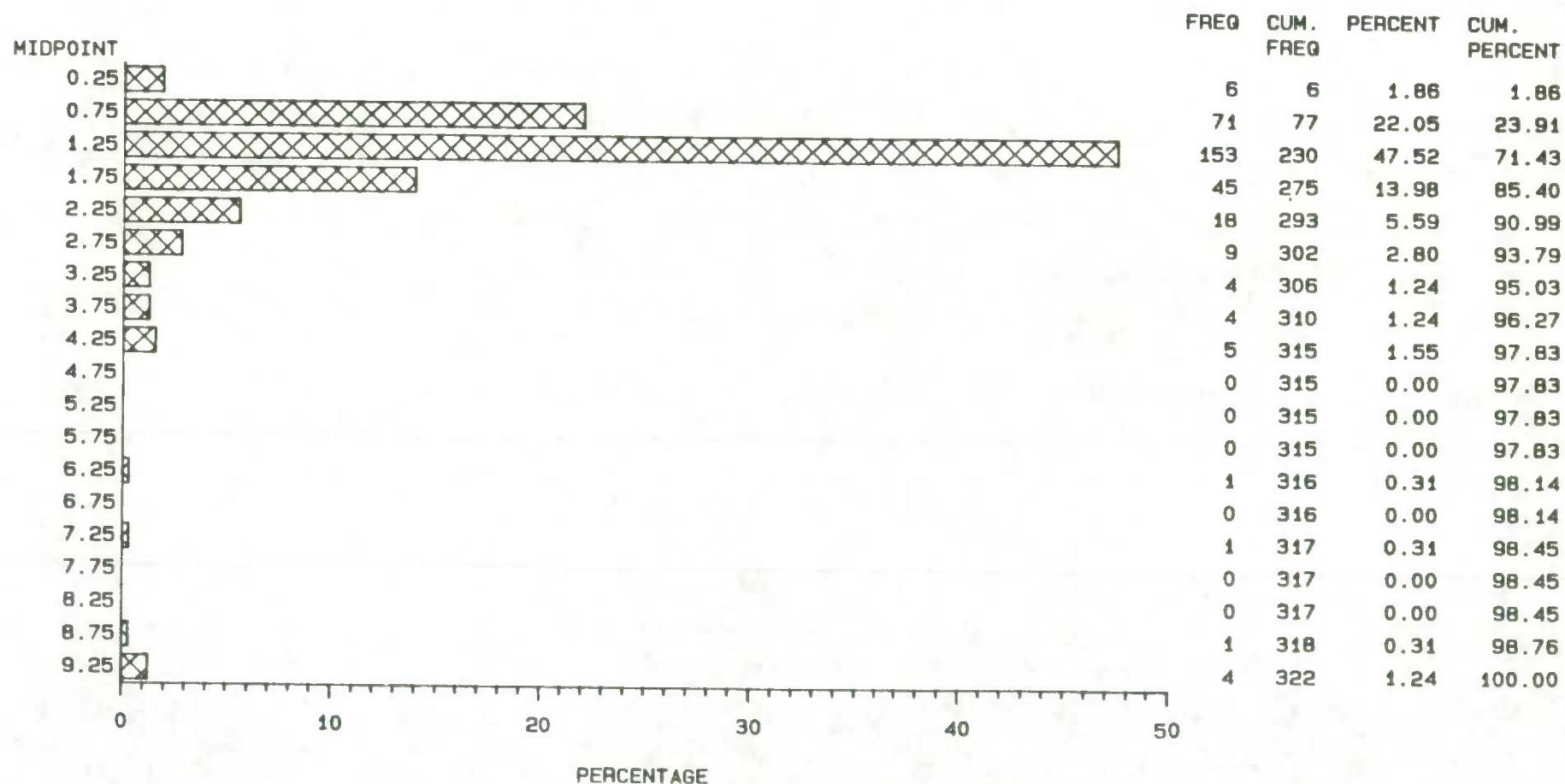
CORRESPONDING TO TWO YEAR TIME INTERVALS  
FOR THE TIME SERIES 1971-1981



\* FOR ANY INDUSTRY  $j$ , RATIO $j$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $j$

GRAPH 7C

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS  
 CORRESPONDING TO TWO YEAR TIME INTERVALS  
 FOR THE TIME SERIES 1981-1984



\* FOR ANY INDUSTRY  $j$ , RATIO $j$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $j$

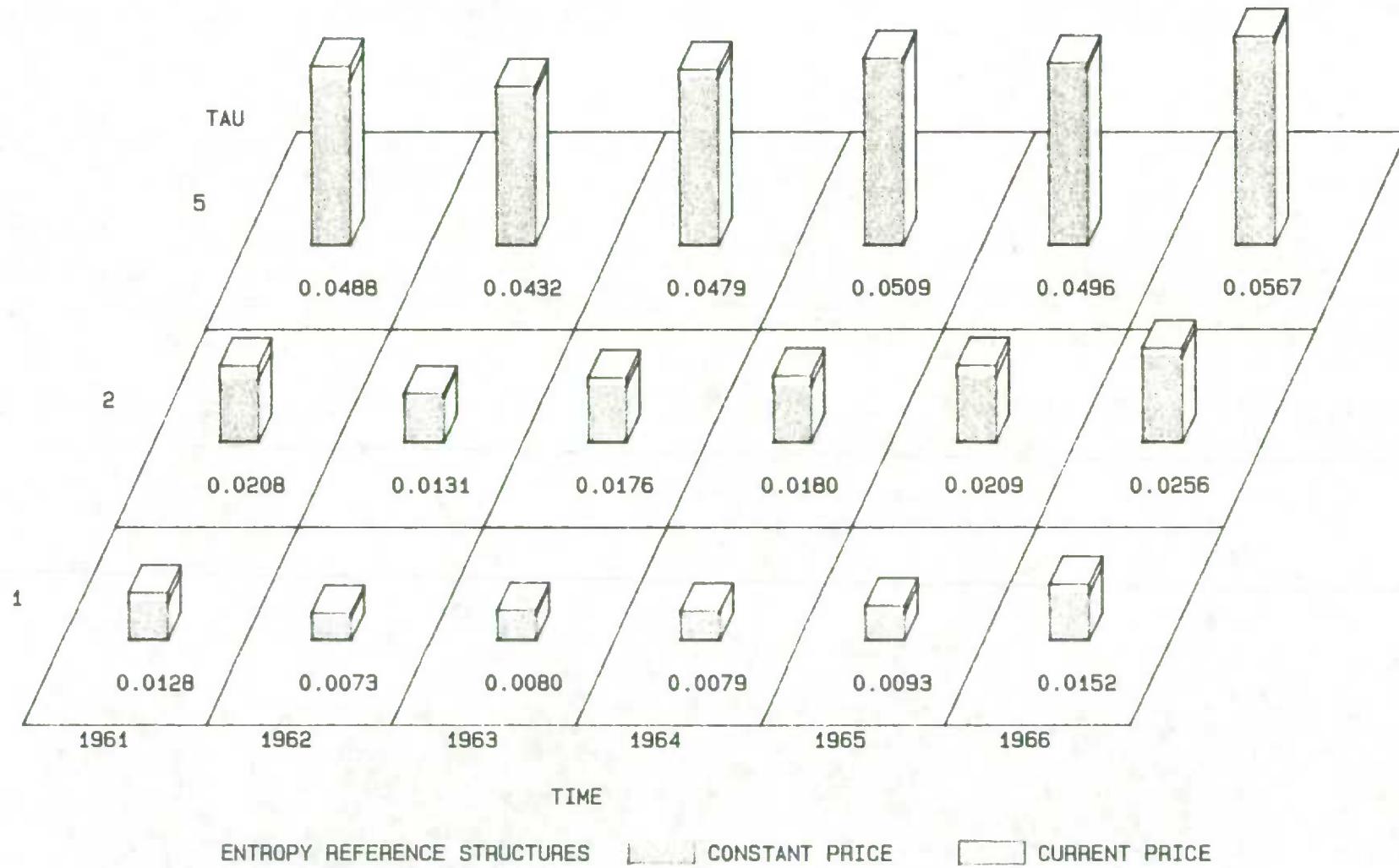
seen that, as the time span goes from one to two years, the distribution is slightly shifting toward a greater instability of the constant price structures. This result inspired us to extend this analysis by considering a longer time span. Accordingly, we carried out the same computations using a five year time span.

Before analyzing those results, we would like to draw the reader's attention to another interesting feature of the results. Although the three time periods covered are not immediately comparable, as previously argued, it can be clearly seen that the somewhat larger structural instability of the current input price structure, noted in the previous report, for the decade of the seventies, is essentially induced by greater price instability. The economy received many price shocks during that period, among which were the energy price shocks of 1973 and 1979. The seventies were indeed not only a period of higher inflation but of rapidly changing relative prices the extent of which can usefully be depicted by Graph 5. It can be seen on that graph, that the sixties were, in relative terms, not only years of lower inflation but of greater stability in relative prices and that this price stability has been gradually reestablished at the beginning of the eighties. This may be an indication, although far from being a proof, that downward rigidities in the price structures exist. In that scenario relative prices would be forced to adjust through an inflationary process. These results, therefore, tend to confirm the conclusion stated in the previous report that there may be no long run tendency for variability to increase.

Looking now over a five year time horizon, it may be observed from Graph 8 that, over all industries, the variability of the current price structure is, as before, larger than that of the constant price structure in all years. The discrepancy between the respective variability estimates obtained for each of the two sets of input structures has nevertheless been somewhat reduced. In order to get a more contrasting picture, we also computed an additional set of frequency diagrams (Graph 9 A and B) which give a more precise measure of the now greater relative instability of constant with respect to current price input structures when compared to time spans of one and two years. The frequency with

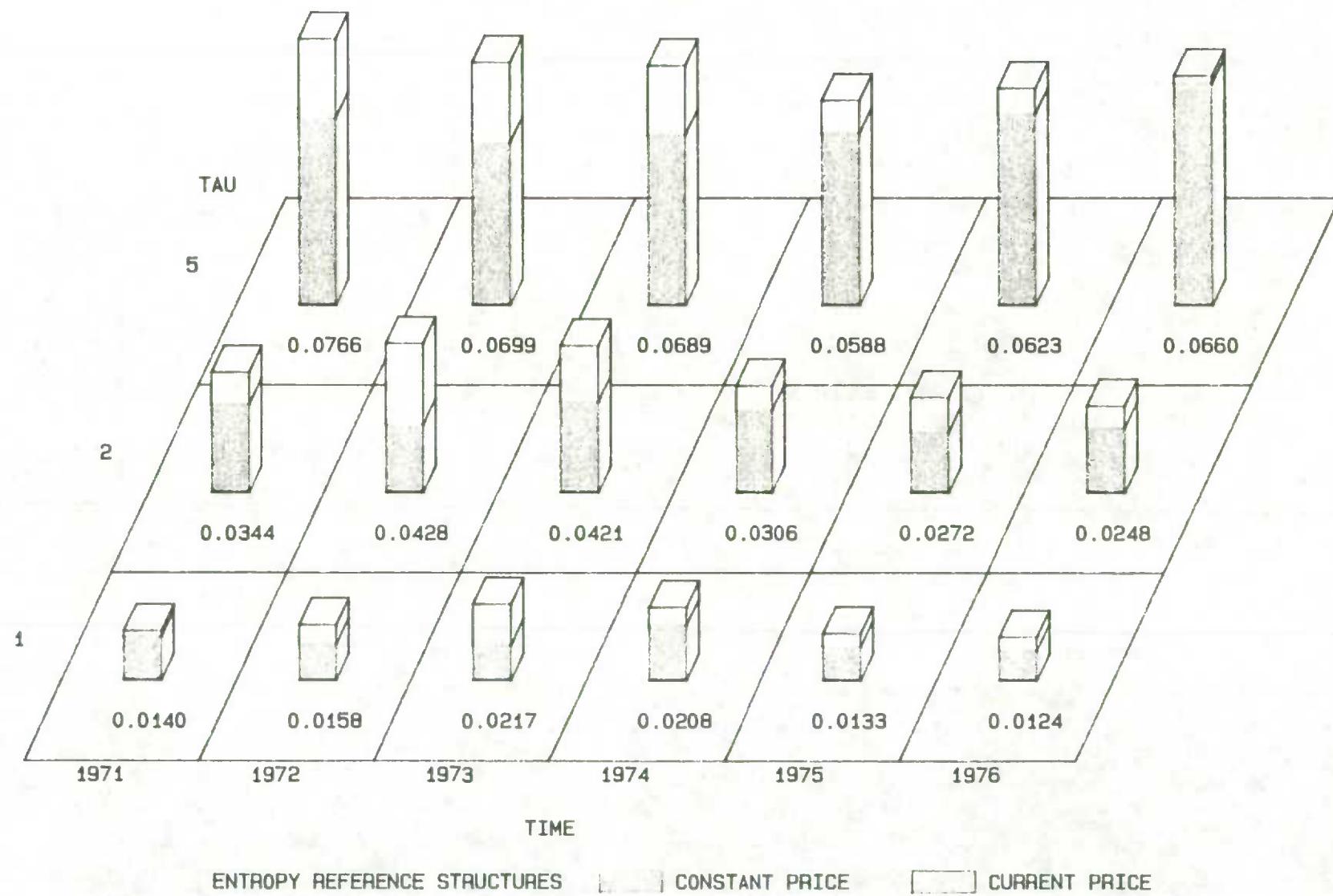
GRAPH 8

OVERLAY OF ENTROPY RESULTS FOR CURRENT AND CONSTANT PRICE INPUT STRUCTURES.  
FOR THE TIME SERIES 1961-1971



GRAPH 8 (CONTINUED)

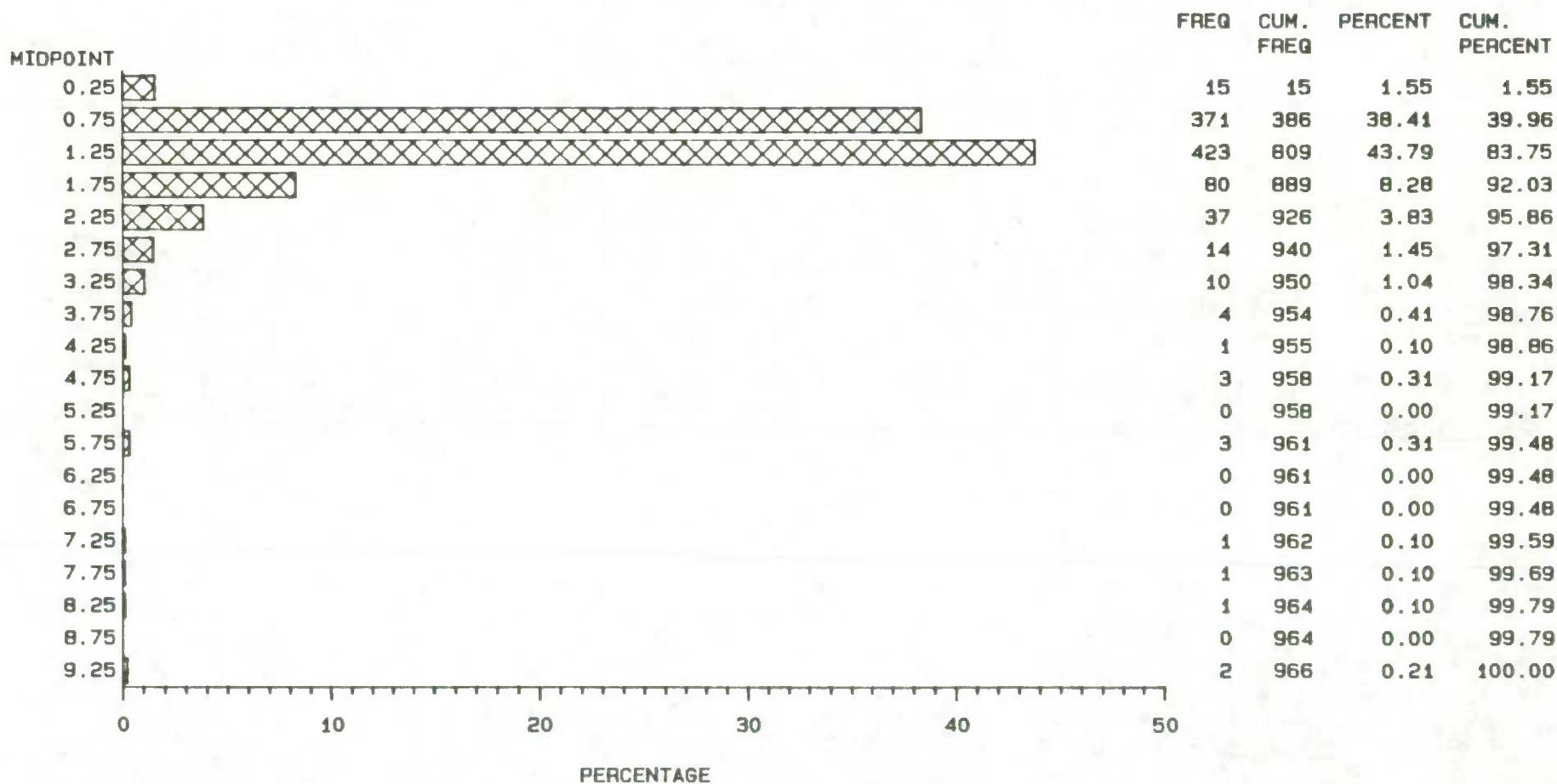
OVERLAY OF ENTROPY RESULTS FOR CURRENT AND CONSTANT PRICE INPUT STRUCTURES.  
FOR THE TIME SERIES 1971-1981



GRAPH 9A

# PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

CORRESPONDING TO FIVE YEAR TIME INTERVALS  
FOR THE TIME SERIES 1961-1971

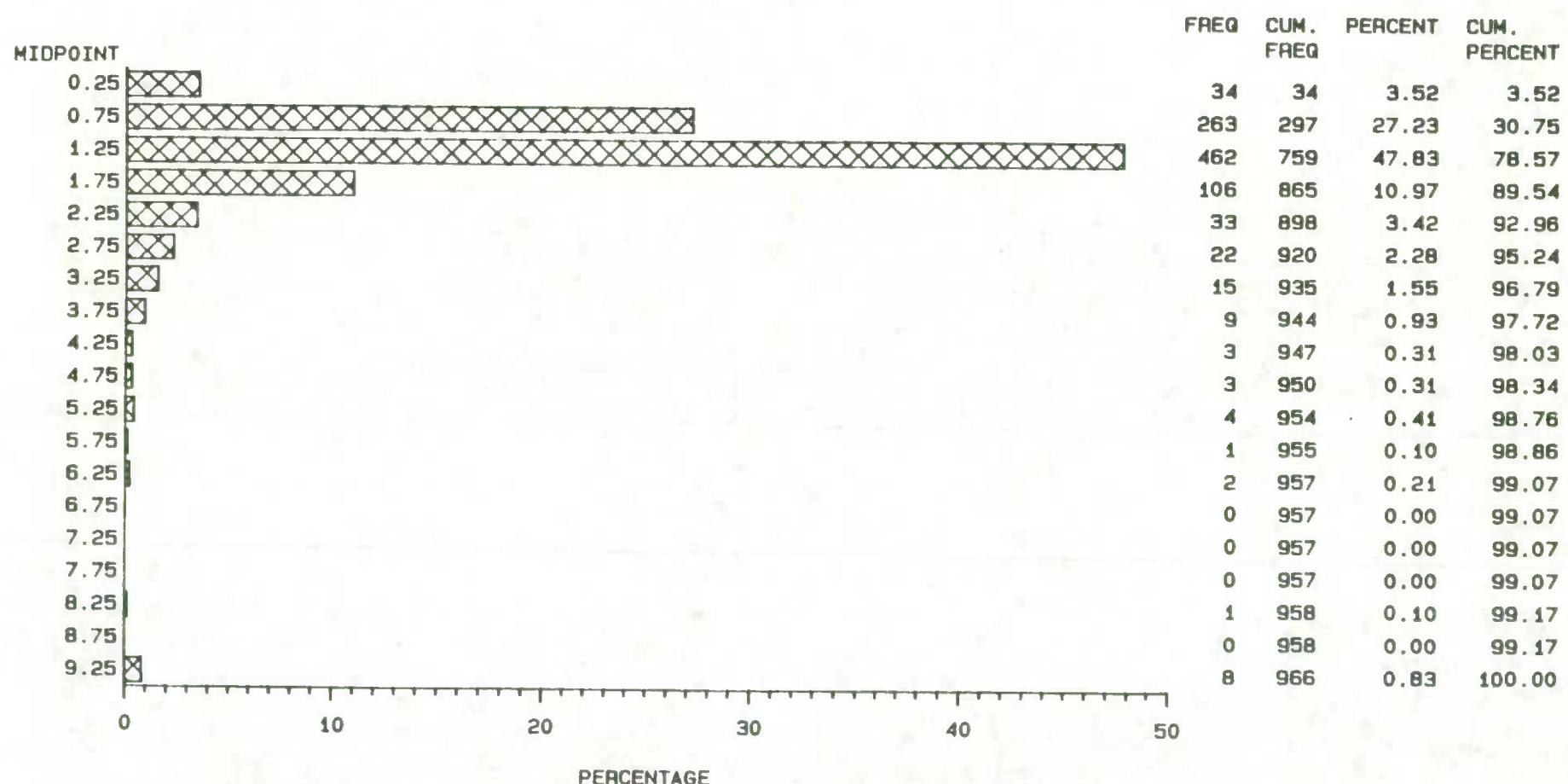


\* FOR ANY INDUSTRY  $j$ , RATIO $j$  = (ENTROPY FOR CURRENT PRICE STRUCTURE) $j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE) $j$

GRAPH 9B

PERCENTAGE DISTRIBUTION OF INDUSTRY ENTROPY RATIOS\* FOR INPUTS

CORRESPONDING TO FIVE YEAR TIME INTERVALS  
FOR THE TIME SERIES 1971-1981



\* FOR ANY INDUSTRY  $j$ , RATIO $_j$  = (ENTROPY FOR CURRENT PRICE STRUCTURE)  $_j$  / (ENTROPY FOR CONSTANT PRICE STRUCTURE)  $_j$

which the ratio of variability is below one is indeed 29.7%, 31.7% and 35.4% respectively for the time span of one, two and five years (the latter results being limited to the first two decades). These results may be interpreted as some indication that price substitution has effectively occurred in the Canadian economy over the period<sup>6</sup>.

It is widely known that the prices of primary commodities are more volatile than the price of finished goods and that the latter are more volatile than the prices of services. We have therefore decided to extend our analysis of price instability to the four major industry groupings presented above in order to see if the impact of relative price changes varies from group to group. Before presenting the results, it must be stated here that the price changes relate to the input structure, not to the output structure or the commodity structure. Relative price changes will have a differentiated impact on these industry groups only to the extent that their respective input structures comprise widely different baskets of commodities.

It may nevertheless be expected that goods producing industries will use more goods as inputs than service producing industries. Furthermore, it is expected that there will be some continuum tendency among goods producing industries, from the primary to the intermediate and finished goods producing industries, to use materials which have been more extensively processed with increasingly more stable relative prices. Hence, it can be expected that the contribution of relative price changes to the variability of the input structure should be larger for primary industries, whose input prices are generally more volatile, than for manufacturing industries. By the same token, relative price changes are expected to account for a smaller contribution to the variability of the input structure for service industries relative to that of the manufacturing industries.

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6. Although this interpretation is not as rigorous as it would be if derived from an econometrically based impact simulation.

Table 3 - Impact of Relative Price Changes on the Variability of the Input Structure by Major Industry Groupings, 1961-1984, one year time horizon, 10<sup>3</sup> units

Industries	Average Variability current prices	Average Variability constant prices	Difference
1961 - 1971			
Primary	12.5	7.7	4.8
Manufacturing	14.4	12.1	2.3
Construction	12.2	12.6	-0.4
Services	5.8	5.2	0.6
1971 - 1981			
Primary	38.8	12.4	26.4
Manufacturing	26.6	19.1	7.5
Construction	12.8	11.5	1.3
Services	5.4	4.3	1.1
1981 - 1984			
Primary	18.0	10.0	8.0
Manufacturing	32.7	25.6	7.1
Construction	18.6	16.4	2.2
Services	9.6	6.2	3.4

This has been confirmed empirically and can be observed from the figures presented in Table 3. Relative price changes had a relatively small impact on the input structure of the Construction and Service producing industries but a substantial impact on goods producing industries in all three periods covered. Among the latter industries, the impact of price instability was much larger for Primary than for Manufacturing industries. The large disruption of the price structure of basic commodities in the seventies is very noticeable. Further insight into this issue will be given in future progress reports when attention will be focussed on the commodity structures rather than the industry structures, which are stressed in this report. The detailed results for industries at the L level of aggregation, which are provided in Appendix 3, should now be re-examined in light of the preceding comments.

## APPENDIX I

The Price Sensitivity of Entropy and the Decomposition of Entropy  
for Current Price Inputs into a Price and a Quantity Component

## APPENDIX 1

### **The Price sensitivity of Entropy and the Decomposition of Current Price Entropy into a Price and a Quantity Component.**

As mentioned in the introduction, the constant price input data, with the exception of the residually computed value added, provide a measure of their physical flows in a common dollar unit of a chosen reference year. This appendix shows that the entropy measure will generally be sensitive to the base year selected unless all relative prices remain constant through time. This is obviously an inconvenience which is compounded by the periodic change of the base year.

In order to develop these ideas, let  $a_t(p_{61})$  be the constant 1961 price input share of a given commodity for some industry at time  $t$ . This input share is defined as

$$a_t(p_{61}) = (x_t/p_t^{61}) / (g_t/II_t^{61}) \quad (1.1)$$

where  $x_t$  is the commodity input flow in current prices,  $g_t$ , the industry's current price gross output,  $p_t^{61}$ , the price index of the input commodity with base year 1961 and  $II_t^{61}$ , the corresponding industry output price with the same base year. The constant 1971 price input share will be similarly defined by

$$a_t(p_{71}) = (x_t/p_t^{71}) / (g_t/II_t^{71}) \quad (1.2)$$

From (1.1) and (1.2), the ratio between an input share in 1971 prices and its counterpart in 1961 prices is given by

$$\frac{a_t(p_{71})}{a_t(p_{61})} = \frac{II_t^{71} p_t^{61}}{II_{61}^t p_t^{71}} \quad (1.3)$$

It follows from (1.3) that the input shares will remain constant when shifting the base year of prices only if relative prices remain the same. Expression (1.3) may be simplified by noting that for any year  $t$ :

$$p_t^{61} / p_t^{71} = p_{71}^{61}; \quad II_t^{71} / II_t^{61} = 1/II_{71}^{61} \quad (1.4)$$

Substituting (1.4) into (1.3), one gets

$$a_t(p_{71}) / a_t(p_{61}) = p_{71}^{61} / II_{71}^{61} \quad (1.5)$$

The rate of change in the input shares will nevertheless remain constant:

$$a_{t+k}(p_{71}) = p_{71}^{61} / II_{71}^{61} \cdot a_{t+k}(p_{61}) = a_{t+k}(p_{61}) \quad (1.6)$$

$$\frac{a_t(p_{71})}{a_t(p_{61})} - \frac{p_{71}^{61} / II_{71}^{61}}{a_t(p_{61})} \frac{a_t(p_{61})}{a_t(p_{61})}$$

However, the cross entropy formula of structural change, given by

$$C(t, t+k) = \sum a(t+k) \log a(t+k) / a(t) \quad (1.7)$$

will be sensitive to the choice of the base year. This sensitivity stems from the weights which are applied to the change in input shares. Indeed for any set of years  $t$  and  $t+k$ , we will have:

$$C_{61}(t, t+k) = \sum a_{t+k}(p_{61}) \log a(t+k) / a(t) \\ = \sum a_{t+k}(p_{71}) (II_{71}^{61}/p_{71}^{61}) \log a(t+k) / a(t) \quad (1.8)$$

$$\dagger \quad C_{71}(t, t+k) \quad (1.9)$$

For small variations in relative prices, changes in the weights of the entropy formula will be small and the results will be similar in any price base. For large fluctuations in relative prices, as experienced in the seventies, the entropy measure is likely to be strongly affected.

This sensitivity of the results to the choice of a base year for constant prices is not, however, a weakness of the entropy measure itself but of the constant price input shares. These input shares are actually indices of technical input-output ratios rather than true "constant" price cost shares. Obviously, the relative size of each technical input coefficient depends on its unit of measurement which is arbitrary and so is the

entropy measure itself. Strictly speaking, the input coefficients are not additive as would be made obvious by measuring them in some physical units like tons of coal required per ton of steel produced, and person-hours required per ton of steel<sup>7</sup>.

What precedes does not mean, however, that the entropy measures presented in this report are meaningless. Indeed, the constant price cost shares may profitably be compared with the current price cost shares. The current price entropy formula may indeed be decomposed into a price and a quantity component. Recalling that the current price entropy formula is given by:

$$C = \sum b \log b/a \quad (1.10)$$

where  $b$  is the current price cost share of a given year and  $a$ , the same cost share for some preceding year, we may set:

$$b = wd \quad (1.11)$$

$$a = vc \quad (1.12)$$

where  $d$  is the constant price input share corresponding to  $b$  (with  $c$  similarly corresponding to  $a$ ) and where  $w$  is the input-output price ratio corresponding to  $b$  (similarly  $v$  is the input-output price ratio corresponding to  $a$ ). Substituting (1.11) and (1.12) into (1.10) yields:

$$C = \sum b \log d/c + \sum b \log w/v \quad (1.13)$$

In (1.13),  $C$  has been decomposed into a weighted sum of changes in constant price input ratios and a weighted sum of changes in relative prices. One must note however that the weights are current price weights so that the first sum of the right hand side of expression

7. In fact, the change in the technical ratios could be weighted with their current price cost shares which would give a measure of technical progress. For that purpose, the input shares could be defined in any arbitrary units but the capital and labour input ratios should not be defined residually as they are in the constant price tables where value added is obtained residually.

(1.13) is not the constant price input shares entropy formula. The latter is given by

$$c_k = \sum d \log d/c \quad (1.14)$$

However, under the assumption of no change in relative prices,  $w/v = 1$  for all inputs and the second sum of (1.13) vanishes while, by (1.11), with  $w = 1$ ,  $b = d$  so that

$$c = c_k \quad (1.15)$$

We may therefore interpret the difference between the variability of current and constant price input structures as being induced by changes in relative prices or as an indirect measure of price variability. This is a meaningful and probably the most interesting interpretation to be drawn from the results reported here.

Before we conclude, it may be interesting to compare the entropy measure with multifactor productivity index. The Tornqvist index of multifactor productivity growth would be given by

$$T = \sum ((b + a)/2) \log d/c \quad (1.16)$$

which is very close to the first sum of (1.13), provided as discussed in the previous footnote, the primary input technical coefficients are appropriately defined. It could be argued that the productivity index would be a preferable measure of structural changes for constant price input structures. A very similar index of structural change has indeed been proposed by Leontief as far back as 1953<sup>8</sup>. On the other hand, the productivity formula does not possess the concavity property of the entropy measures and can be either negative or positive. What this means, in concrete terms, is that input substitution may occur with no

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8. Leontief, W. et Al., Studies in the Structure of the American Economy, New York, 1953, pp. 27-35.

technical progress. Hence, the productivity index constitutes an incomplete index of structural change. The entropy index, on the other hand, is both sensitive to productivity growth and price substitution. It therefore appears to be a superior measure of structural changes.

## **APPENDIX 2**

**Descriptive Summary Report of Entropy Results from on Industry  
Decomposition of Constant Price Inputs at the L Level of Aggregation  
for One and Two Year Intervals**

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1961-1971 FOR ONE YEAR TIME INTERVALS

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0046	0.0014	0.0116	0.0402	0.0675	0.00019	0.00006	0.00045
2	FISHING & TRAPPING INDUSTRIES	0.0043	0.0014	0.0087	0.0442	0.0789	0.00001	0.00000	0.00002
3	LOGGING & FORESTRY INDUSTRIES	0.0036	0.0006	0.0105	0.0310	0.0565	0.00003	0.00001	0.00010
4	GOLD MINES	0.0054	0.0014	0.0162	0.0460	0.0759	0.00001	0.00000	0.00003
5	OTHER METAL MINES	0.0056	0.0028	0.0087	0.0411	0.0739	0.00005	0.00003	0.00009
6	IRON MINES	0.0150	0.0018	0.0476	0.1317	0.2168	0.00006	0.00001	0.00024
7	ASBESTOS MINES	0.0072	0.0036	0.0109	0.0602	0.1156	0.00001	0.00001	0.00002
8	NON-METAL MINES EX COAL & ASBESTOS	0.0152	0.0054	0.0364	0.1419	0.2407	0.00002	0.00001	0.00005
9	SALT MINES	0.0085	0.0031	0.0255	0.0824	0.1323	0.00000	0.00000	0.00001
10	COAL MINES	0.0276	0.0035	0.1276	0.2509	0.4144	0.00002	0.00000	0.00012
11	CRUDE PETROLEUM & NATURAL GAS	0.0018	0.0007	0.0032	0.0138	0.0236	0.00002	0.00001	0.00004
12	QUARRY & SAND PIT INDUSTRIES	0.0084	0.0051	0.0152	0.0815	0.1484	0.00001	0.00001	0.00003
13	SERVICE RELATED TO MINERAL EXTRACT.	0.0100	0.0036	0.0174	0.1017	0.1825	0.00002	0.00001	0.00004
14	MEAT & MEAT PRODUCTS (EXC. POULTRY)	0.0038	0.0021	0.0068	0.0299	0.0489	0.00006	0.00003	0.00011
15	POULTRY PRODUCTS INDUSTRY	0.0124	0.0023	0.0307	0.1058	0.1705	0.00003	0.00001	0.00007
16	FISH PRODUCTS INDUSTRY	0.0108	0.0022	0.0172	0.0966	0.1677	0.00003	0.00001	0.00004
17	FRUIT AND VEGETABLE INDUSTRIES	0.0090	0.0021	0.0349	0.0731	0.1294	0.00004	0.00001	0.00016
18	DAIRY PRODUCTS INDUSTRIES	0.0049	0.0014	0.0097	0.0358	0.0635	0.00006	0.00001	0.00013
19	FEED INDUSTRY	0.0154	0.0062	0.0574	0.1200	0.2201	0.00008	0.00003	0.00029
20	VEGETABLE OIL MILLS (EXC. CORN OIL)	0.0229	0.0056	0.0722	0.2103	0.3099	0.00002	0.00001	0.00007
21	BISCUIT INDUSTRY	0.0093	0.0028	0.0202	0.0813	0.1485	0.00001	0.00000	0.00003
22	BREAD & OTHER BAKERY PRODUCTS IND.	0.0056	0.0034	0.0104	0.0451	0.0846	0.00002	0.00001	0.00004
23	CANE & BEET SUGAR INDUSTRY	0.0176	0.0032	0.0581	0.1560	0.2376	0.00003	0.00000	0.00010
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0066	0.0038	0.0122	0.0480	0.0839	0.00007	0.00004	0.00014
25	SOFT DRINK INDUSTRY	0.0079	0.0025	0.0152	0.0675	0.1209	0.00002	0.00001	0.00004
26	DISTILLERY PRODUCTS INDUSTRY	0.0047	0.0031	0.0068	0.0395	0.0725	0.00001	0.00001	0.00002
27	BREWERY PRODUCTS INDUSTRY	0.0033	0.0016	0.0046	0.0283	0.0502	0.00001	0.00001	0.00002
28	WINE INDUSTRY	0.0227	0.0054	0.0701	0.2226	0.3786	0.00001	0.00000	0.00002
29	TOBACCO PRODUCTS INDUSTRIES	0.0056	0.0011	0.0130	0.0522	0.0846	0.00002	0.00000	0.00005
30	RUBBER PRODUCTS INDUSTRIES	0.0085	0.0028	0.0181	0.0692	0.1208	0.00005	0.00001	0.00011
31	PLASTIC PRODUCTS INDUSTRIES	0.0071	0.0017	0.0152	0.0578	0.1009	0.00002	0.00000	0.00004
32	LEATHER TANNERIES	0.0160	0.0063	0.0416	0.1482	0.2352	0.00001	0.00000	0.00002
33	FOOTWEAR INDUSTRY	0.0072	0.0014	0.0253	0.0587	0.1003	0.00002	0.00000	0.00005
34	MISC. LEATHER & ALLIED PROD. IND.	0.0085	0.0015	0.0445	0.0768	0.1387	0.00001	0.00000	0.00003
35	MAN-MADE FIBRE YARN & WOVEN CLOTH	0.0093	0.0034	0.0174	0.0775	0.1381	0.00007	0.00003	0.00014
36	WOOL YARN & WOVEN CLOTH INDUSTRY	0.0172	0.0084	0.0369	0.1523	0.2755	0.00002	0.00001	0.00004
37	BROAD KNITTED FABRIC INDUSTRY	0.0081	0.0014	0.0269	0.0696	0.1283	0.00001	0.00000	0.00003
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0260	0.0100	0.0531	0.2152	0.3708	0.00008	0.00003	0.00016
39	CONTRACT TEXTILE DYEING & FINISHING	0.0543	0.0037	0.1710	0.5217	0.8718	0.00003	0.00000	0.00008
40	CARPET, MAT & RUG INDUSTRY	0.0349	0.0072	0.1059	0.3383	0.5824	0.00004	0.00001	0.00012
41	CLOTHING INDUSTRIES EXC. HOSIERY	0.0078	0.0025	0.0147	0.0558	0.1088	0.00009	0.00003	0.00018
42	HOSIERY INDUSTRY	0.0127	0.0056	0.0314	0.1115	0.1948	0.00001	0.00001	0.00003
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0047	0.0019	0.0147	0.0387	0.0699	0.00005	0.00002	0.00015
44	VENEER AND PLYWOOD INDUSTRIES	0.0062	0.0024	0.0167	0.0577	0.0893	0.00001	0.00001	0.00004
45	SASH, DOOR & OTHER MILLWORK IND.	0.0146	0.0035	0.0461	0.1193	0.2327	0.00004	0.00001	0.00011
46	WOODEN BOX & COFFIN INDUSTRIES	0.0105	0.0022	0.0175	0.0975	0.1712	0.00001	0.00000	0.00001
47	OTHER WOOD INDUSTRIES	0.0273	0.0075	0.0635	0.2516	0.4556	0.00002	0.00001	0.00005
48	HOUSEHOLD FURNITURE INDUSTRIES	0.0075	0.0029	0.0143	0.0648	0.1177	0.00002	0.00001	0.00004
49	OFFICE FURNITURE INDUSTRIES	0.0245	0.0040	0.0858	0.2319	0.4099	0.00002	0.00000	0.00005

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1961-1971 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-2

CODE	INDUSTRY	AVERAGE RAW ENTRDPY	MINIMUM RAW ENTRDPY	MAXIMUM RAW ENTRDPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTRDPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
50	OTHER FURNITURE & FIXTURE IND.	0.0093	0.0030	0.0183	0.0778	0.1547	0.00002	0.00001	0.00003
51	PULP & PAPER INDUSTRIES	0.0036	0.0014	0.0086	0.0288	0.0493	0.00008	0.00003	0.00019
52	ASPHALT ROOFING INDUSTRY	0.0208	0.0027	0.1273	0.2262	0.3383	0.00001	0.00000	0.00005
53	PAPER BOX & BAG INDUSTRIES	0.0064	0.0016	0.0121	0.0540	0.0915	0.00003	0.00001	0.00006
54	OTHER CONVERTED PAPER PRODUCTS IND.	0.0094	0.0040	0.0191	0.0782	0.1459	0.00003	0.00001	0.00006
55	PRINTING & PUBLISHING IND.	0.0021	0.0007	0.0057	0.0159	0.0285	0.00002	0.00001	0.00005
56	PLATEMAKING, TYPESETTING & BINDERY	0.0088	0.0010	0.0318	0.0770	0.1414	0.00001	0.00000	0.00003
57	PRIMARY STEEL INDUSTRIES	0.0079	0.0026	0.0169	0.0620	0.1123	0.00010	0.00004	0.00021
58	STEEL PIPE & TUBE INDUSTRY	0.0205	0.0053	0.0550	0.1819	0.3144	0.00005	0.00001	0.00016
59	IRON FOUNDRIES	0.0183	0.0036	0.0515	0.1626	0.2800	0.00003	0.00001	0.00008
60	NON-FERROUS SMELTING & REFINING IND	0.0088	0.0042	0.0186	0.0629	0.1119	0.00013	0.00007	0.00028
61	ALUMINUM ROLLING CASTING, EXTRUDING	0.0536	0.0051	0.3542	0.4681	0.7818	0.00010	0.00001	0.00066
62	COPPER ROLLING CASTING & EXTRUDING	0.0164	0.0061	0.0355	0.1423	0.2360	0.00003	0.00001	0.00006
63	OTHER METAL ROLLING, CASTING ETC.	0.0148	0.0099	0.0229	0.1342	0.2275	0.00002	0.00001	0.00003
64	POWER GENERATOR & STRUCT. METAL IND.	0.0091	0.0031	0.0202	0.0735	0.1303	0.00005	0.00002	0.00010
65	ORNAMENTAL & ARCH. METAL PROD. IND.	0.0155	0.0046	0.0341	0.1335	0.2258	0.00004	0.00001	0.00008
66	STAMPED, PRESSED & COATED METALS	0.0089	0.0028	0.0219	0.0687	0.1203	0.00006	0.00002	0.00014
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0073	0.0014	0.0209	0.0621	0.1035	0.00003	0.00001	0.00007
68	HARDWARE, TOOL & CUTLERY INDUSTRIES	0.0179	0.0054	0.0491	0.1523	0.2684	0.00004	0.00001	0.00010
69	HEATING EQUIPMENT INDUSTRY	0.0219	0.0058	0.0485	0.1904	0.3561	0.00002	0.00001	0.00005
70	MACHINE SHOPS INDUSTRY	0.0075	0.0020	0.0323	0.0653	0.1172	0.00001	0.00000	0.00005
71	OTHER METAL FABRICATING INDUSTRIES	0.0112	0.0020	0.0225	0.0890	0.1634	0.00004	0.00001	0.00008
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0112	0.0033	0.0187	0.0937	0.1683	0.00003	0.00001	0.00005
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0411	0.0089	0.1296	0.4019	0.6938	0.00002	0.00000	0.00005
74	OTHER MACHINERY & EQUIPMENT IND.	0.0069	0.0034	0.0133	0.0519	0.0993	0.00006	0.00003	0.00010
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0085	0.0036	0.0154	0.0718	0.1307	0.00004	0.00002	0.00009
76	MOTOR VEHICLE INDUSTRY	0.0074	0.0010	0.0179	0.0542	0.1016	0.00019	0.00002	0.00048
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.0218	0.0074	0.0489	0.1951	0.3619	0.00003	0.00001	0.00008
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0150	0.0088	0.0289	0.1161	0.2199	0.00015	0.00007	0.00033
79	RAILROAD ROLLING STOCK INDUSTRY	0.0398	0.0076	0.1231	0.3528	0.6417	0.00006	0.00001	0.00020
80	SHIPBUILDING AND REPAIR INDUSTRY	0.0241	0.0132	0.0424	0.2156	0.3795	0.00006	0.00003	0.00010
81	MISC. TRANSPORTATION EQUIPMENT IND.	0.0436	0.0070	0.1287	0.4328	0.7421	0.00005	0.00000	0.00010
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.0133	0.0044	0.0419	0.1161	0.2032	0.00002	0.00001	0.00006
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0183	0.0027	0.0805	0.1456	0.2715	0.00005	0.00001	0.00024
84	RECORD PLAYERS, RADIOS & TV RECEIVER	0.0156	0.0068	0.0335	0.1318	0.2261	0.00003	0.00001	0.00008
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0133	0.0025	0.0413	0.1017	0.1820	0.00008	0.00001	0.00027
86	OFFICE, STORE & BUSINESS MACHINES	0.0487	0.0018	0.3231	0.3888	0.6324	0.00011	0.00000	0.00063
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0150	0.0075	0.0261	0.1285	0.2197	0.00004	0.00002	0.00007
88	BATTERY INDUSTRY	0.0190	0.0031	0.0375	0.1747	0.2972	0.00001	0.00000	0.00002
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0063	0.0028	0.0175	0.0490	0.0874	0.00004	0.00002	0.00012
90	CLAY PRODUCTS INDUSTRY	0.0084	0.0037	0.0149	0.0795	0.1373	0.00001	0.00000	0.00001
91	CEMENT INDUSTRY	0.0093	0.0024	0.0375	0.0875	0.1494	0.00001	0.00000	0.00006
92	CONCRETE PRODUCTS INDUSTRY	0.0055	0.0022	0.0089	0.0462	0.0892	0.00001	0.00000	0.00002
93	READY-MIX CONCRETE INDUSTRY	0.0121	0.0046	0.0298	0.1059	0.1869	0.00003	0.00001	0.00006
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0084	0.0018	0.0374	0.0818	0.1242	0.00002	0.00000	0.00007
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0083	0.0025	0.0217	0.0682	0.1207	0.00002	0.00001	0.00006
96	REFINED PETROLEUM & OIL PRODUCTS	0.0030	0.0013	0.0065	0.0216	0.0387	0.00005	0.00002	0.00012
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0110	0.0048	0.0190	0.0924	0.1585	0.00009	0.00004	0.00017
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0154	0.0084	0.0332	0.1473	0.2539	0.00003	0.00002	0.00007

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1961-1971 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-3

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0113	0.0046	0.0493	0.0931	0.1621	0.00003	0.00001	0.00015
100	PAINT AND VARNISH INDUSTRY	0.0089	0.0034	0.0289	0.0740	0.1362	0.00002	0.00001	0.00006
1D1	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0118	0.0030	0.0292	0.0976	0.1761	0.00003	0.00001	0.00006
102	TOILET PREPARATIONS INDUSTRY	0.0099	0.0046	0.0438	0.0893	0.1555	0.00001	0.00001	0.00005
1D3	CHEMICAL & CHEMICAL PRODUCTS NEC	0.0163	0.0050	0.0311	0.1316	0.2324	0.00007	0.00002	0.00014
104	JEWELLERY & PRECIOUS METAL IND.	0.0118	0.0055	0.0247	0.1052	0.1808	0.00001	0.00000	0.00002
105	SPORTING GOODS & TOY INDUSTRIES	0.0143	0.0016	0.0549	0.1238	0.2411	0.00002	0.00000	0.00006
106	SIGN AND DISPLAY INDUSTRY	0.0228	0.0011	0.1113	0.2029	0.3787	0.00002	0.00000	0.00008
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.0444	0.0131	0.0939	0.4254	0.7233	0.00003	0.00001	0.00006
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0069	0.0021	0.0167	0.0562	0.0954	0.00004	0.00001	0.00008
109	REPAIR CONSTRUCTION	0.0056	0.0019	0.0146	0.0493	0.0821	0.00008	0.00003	0.00018
110	RESIDENTIAL CONSTRUCTION	0.0098	0.0048	0.0162	0.0763	0.1355	0.00026	0.00012	0.00045
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0088	0.0059	0.0144	0.0674	0.1250	0.00023	0.00015	0.00044
112	ROAD, HIGHWAY & AIRSTRIP CONST.	0.0094	0.0034	0.0327	0.0756	0.1359	0.00007	0.00002	0.00021
113	GAS & OIL FACILITY CONSTRUCTION	0.0275	0.0066	0.0855	0.2362	0.4032	0.00016	0.00004	0.00052
114	OAMS & IRRIGATION PROJECTS	0.0095	0.0065	0.0136	0.0760	0.1449	0.00007	0.00004	0.00009
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0067	0.0030	0.0161	0.0588	0.1007	0.00002	0.00001	0.00004
116	OTHER ENGINEERING CONSTRUCTION	0.0105	0.0040	0.0201	0.0863	0.1527	0.00008	0.00003	0.00016
117	CONSTRUCTION, OTHER ACTIVITIES	0.0076	0.0011	0.0156	0.0753	0.1264	0.00001	0.00000	0.00001
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0050	0.0025	0.0080	0.0457	0.0909	0.00002	0.00001	0.00004
119	RAILWAY TRANSPORT & REL. SERVICES	0.0031	0.0014	0.0067	0.0250	0.0398	0.00005	0.00003	0.00011
120	WATER TRANSPORT & REL. SERVICES	0.0058	0.0013	0.0125	0.0499	0.0936	0.00004	0.00001	0.00009
121	TRUCK TRANSPORT INDUSTRIES	0.0035	0.0009	0.0099	0.0370	0.0618	0.00005	0.00001	0.00013
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0035	0.0009	0.0087	0.0329	0.0552	0.00001	0.00000	0.00001
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0069	0.0032	0.0162	0.0893	0.1332	0.00001	0.00000	0.00002
124	TAXICAB INDUSTRY	0.0016	0.0005	0.0026	0.0181	0.0290	0.00000	0.00000	0.00000
125	OTHER TRANSPORT & SERV. TO TRANSP.	0.0081	0.0021	0.0284	0.1042	0.1497	0.00001	0.00000	0.00005
126	HIGHWAY & BRIDGE MAINTENANCE IND.	0.0146	0.0014	0.0794	0.1775	0.2781	0.00000	0.00000	0.00003
127	PIPELINE TRANSPORT INDUSTRIES	0.0101	0.0009	0.0399	0.0888	0.1660	0.00004	0.00000	0.00018
128	STORAGE AND WAREHOUSING INDUSTRIES	0.0058	0.0016	0.0112	0.0623	0.1124	0.00001	0.00000	0.00002
129	TELECOMMUNICATION BROADCASTING IND.	0.0032	0.0018	0.0055	0.0357	0.0581	0.00001	0.00001	0.00002
130	TELECOMMUNICATION CARRIERS & OTHER	0.0016	0.0002	0.0040	0.0133	0.0252	0.00002	0.00000	0.00005
131	POSTAL SERVICE INDUSTRY	0.0027	0.0008	0.0070	0.0259	0.0436	0.00001	0.00000	0.00002
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0043	0.0012	0.0157	0.0411	0.0677	0.00006	0.00002	0.00021
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0047	0.0003	0.0136	0.0468	0.0803	0.00001	0.00000	0.00003
134	OTHER UTILITY INDUSTRIES NEC	0.0352	0.0024	0.1107	0.4588	0.6740	0.00001	0.00000	0.00003
135	WHOLESALE TRADE INDUSTRIES	0.0016	0.0008	0.0033	0.0109	0.0200	0.00007	0.00003	0.00013
136	RETAIL TRADE INDUSTRIES	0.0016	0.0006	0.0026	0.0108	0.0193	0.00009	0.00004	0.00015
137	BANKS, CREDIT UNION & OTH. OEP INST	0.0046	0.0010	0.0201	0.0366	0.0729	0.00004	0.00001	0.00017
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0083	0.0019	0.0213	0.0728	0.1449	0.00036	0.00008	0.00092
139	INSURANCE INDUSTRIES	0.0045	0.0012	0.0082	0.0356	0.0760	0.00004	0.00001	0.00006
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0001	0.0000	0.0005	0.0014	0.0031	0.00001	0.00000	0.00002
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0077	0.0010	0.0372	0.0761	0.1280	0.00003	0.00000	0.00022
143	PROFESSIONAL BUSINESS SERVICES	0.0027	0.0002	0.0076	0.0244	0.0428	0.00002	0.00000	0.00007
144	ADVERTISING SERVICES	0.0034	0.0005	0.0107	0.0355	0.0634	0.00000	0.00000	0.00001
145	EDUCATIONAL SERVICE INDUSTRIES	0.0028	0.0005	0.0086	0.0240	0.0495	0.00000	0.00000	0.00001
146	HOSPITALS	0.0063	0.0015	0.0157	0.0652	0.1127	0.00000	0.00000	0.00001
147	OTHER HEALTH SERVICES	0.0029	0.0004	0.0199	0.0275	0.0467	0.00003	0.00000	0.00021

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1961-1971 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-4

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	ENTRDPY	STANDARD. ENTRDPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0049	0.0007	0.0211	0.0424	0.0739	0.00011	0.00002	0.00045
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0058	0.0004	0.0090	0.0598	0.1042	0.00001	0.00000	0.00001
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0292	0.0013	0.1137	0.2844	0.4706	0.00008	0.00000	0.00039
151	LAUNDRIES & CLEANERS	0.0016	0.0003	0.0053	0.0168	0.0276	0.00000	0.00000	0.00001
152	OTHER PERSONAL SERVICES	0.0025	0.0005	0.0044	0.0231	0.0389	0.00001	0.00000	0.00002
153	PHOTOGRAPHERS	0.0029	0.0004	0.0111	0.0277	0.0498	0.00000	0.00000	0.00000
154	MISC. SERVICE INDUSTRIES	0.0064	0.0005	0.0212	0.0599	0.0972	0.00004	0.00000	0.00013
155	OPERATING SUPPLIES	0.0173	0.0044	0.0514	0.1398	0.2713	0.00042	0.00011	0.00128
156	OFFICE SUPPLIES	0.0013	0.0003	0.0032	0.0202	0.0325	0.00001	0.00000	0.00002
157	CAFETERIA SUPPLIES	0.0008	0.0001	0.0017	0.0094	0.0169	0.00000	0.00000	0.00000
158	LABORATORY SUPPLIES	0.0067	0.0015	0.0187	0.0802	0.1254	0.00001	0.00000	0.00002
159	TRAVEL & ENTERTAINMENT	0.0020	0.0014	0.0034	0.0239	0.0403	0.00002	0.00001	0.00003
160	ADVERTISING & PROMOTION	0.0015	0.0006	0.0041	0.0223	0.0394	0.00001	0.00001	0.00004
161	TRANSPORTATION MARGINS	0.0021	0.0003	0.0051	0.0399	0.0734	0.00005	0.00001	0.00013

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1961-1971 FOR TWO YEAR TIME INTERVALS

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0077	0.0031	0.0122	0.0674	0.1126	0.00031	0.00013	0.00055
2	FISHING & TRAPPING INDUSTRIES	0.0078	0.0030	0.0150	0.0806	0.1429	0.00001	0.00000	0.00003
3	LOGGING & FORESTRY INDUSTRIES	0.0087	0.0038	0.0198	0.0758	0.1383	0.00008	0.00004	0.00019
4	GDLD MINES	0.0086	0.0031	0.0151	0.0735	0.1214	0.00001	0.00000	0.00003
5	OTHER METAL MINES	0.0135	0.0064	0.0228	0.0996	0.1790	0.00013	0.00006	0.00020
6	IRDN MINES	0.0293	0.0056	0.0669	0.2620	0.4284	0.00013	0.00003	0.00033
7	ASBESTOS MINES	0.0142	0.0069	0.0224	0.1186	0.2265	0.00002	0.00001	0.00004
8	NON-METAL MINES EX CDAL & ASBESTOS	0.0269	0.0080	0.0621	0.2554	0.4303	0.00003	0.00001	0.00005
9	SALT MINES	0.0155	0.0046	0.0392	0.1504	0.2405	0.00001	0.00000	0.00001
10	COAL MINES	0.0572	0.0042	0.2081	0.5158	0.8534	0.00005	0.00000	0.00020
11	CRUDE PETROLEUM & NATURAL GAS	0.0045	0.0016	0.0063	0.0337	0.0578	0.00005	0.00002	0.00008
12	QUARRY & SAND PIT INDUSTRIES	0.0140	0.0069	0.0206	0.1375	0.2486	0.00003	0.00001	0.00004
13	SERVICE RELATED TO MINERAL EXTRACT.	0.0196	0.0121	0.0248	0.1999	0.3558	0.00005	0.00003	0.00006
14	MEAT & MEAT PRODUCTS (EXC. POULTRY)	0.0069	0.0035	0.0122	0.0554	0.0901	0.00010	0.00005	0.00018
15	POULTRY PRODUCTS INDUSTRY	0.0241	0.0051	0.0508	0.2057	0.3299	0.00005	0.00001	0.00010
16	FISH PRODUCTS INDUSTRY	0.0159	0.0054	0.0366	0.1357	0.2451	0.00004	0.00002	0.00009
17	FRUIT AND VEGETABLE INDUSTRIES	0.0178	0.0045	0.0464	0.1442	0.2550	0.00008	0.00002	0.00022
18	DAIRY PRODUCTS INDUSTRIES	0.0105	0.0042	0.0241	0.0771	0.1366	0.00012	0.00005	0.00032
19	FEED INDUSTRY	0.0248	0.0088	0.0510	0.1939	0.3549	0.00012	0.00004	0.00026
20	VEGETABLE OIL MILLS (EXC. CORN DIL)	0.0294	0.0047	0.0592	0.2668	0.3954	0.00003	0.00000	0.00006
21	BISCUIT INDUSTRY	0.0169	0.0091	0.0315	0.1474	0.2702	0.00002	0.00001	0.00003
22	BREAD & OTHER BAKERY PRODUCTS IND.	0.0117	0.0058	0.0201	0.0949	0.1779	0.00005	0.00002	0.00007
23	CANE & BEET SUGAR INDUSTRY	0.0329	0.0085	0.0669	0.2952	0.4495	0.00005	0.00001	0.00012
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0127	0.0086	0.0172	0.0924	0.1608	0.00014	0.00009	0.00020
25	SOFT DRINK INDUSTRY	0.0207	0.0068	0.0404	0.1766	0.3171	0.00005	0.00002	0.00010
26	DISTILLERY PRODUCTS INDUSTRY	0.0094	0.0067	0.0168	0.0786	0.1443	0.00003	0.00002	0.00005
27	BREWERY PRODUCTS INDUSTRY	0.0065	0.0038	0.0089	0.0561	0.0996	0.00002	0.00001	0.00003
28	WINE INDUSTRY	0.0346	0.0133	0.0698	0.3414	0.5788	0.00001	0.00001	0.00002
29	TOBACCO PRODUCTS INDUSTRIES	0.0099	0.0034	0.0218	0.0937	0.1509	0.00004	0.00002	0.00009
30	RUBBER PRODUCTS INDUSTRIES	0.0175	0.0069	0.0333	0.1414	0.2475	0.00010	0.00004	0.00020
31	PLASTIC PRODUCTS INDUSTRIES	0.0136	0.0022	0.0249	0.1108	0.1932	0.00005	0.00001	0.00009
32	LEATHER TANNERIES	0.0308	0.0109	0.0578	0.2875	0.4532	0.00002	0.00001	0.00004
33	FOOTWEAR INDUSTRY	0.0141	0.0026	0.0390	0.1141	0.1940	0.00003	0.00001	0.00007
34	MISC. LEATHER & ALLIED PROD. IND.	0.0174	0.0031	0.0520	0.1568	0.2833	0.00001	0.00000	0.00004
35	MAN-MADE FIBRE YARN & WOVEN CLOTH	0.0211	0.0064	0.0379	0.1754	0.3127	0.00016	0.00005	0.00029
36	WOOL YARN & WOVEN CLOTH INDUSTRY	0.0317	0.0103	0.0601	0.2835	0.5060	0.00004	0.00001	0.00007
37	BROAD KNITTED FABRIC INDUSTRY	0.0161	0.0020	0.0368	0.1387	0.2570	0.00002	0.00000	0.00004
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0521	0.0200	0.1057	0.4285	0.7417	0.00015	0.00006	0.00031
39	CONTRACT TEXTILE DYEING & FINISHING	0.0698	0.0112	0.2287	0.6698	1.1246	0.00003	0.00000	0.00012
40	CARPET, MAT & RUG INDUSTRY	0.0693	0.0270	0.1674	0.6749	1.1538	0.00008	0.00002	0.00023
41	CLOTHING INDUSTRIES EXC. HOSIERY	0.0219	0.0092	0.0361	0.1569	0.3055	0.00026	0.00012	0.00042
42	HOSIERY INDUSTRY	0.0208	0.0056	0.0423	0.1832	0.3196	0.00002	0.00001	0.00004
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0113	0.0051	0.0286	0.0936	0.1669	0.00011	0.00004	0.00028
44	VEENEER AND PLYWOOD INDUSTRIES	0.0127	0.0053	0.0287	0.1178	0.1842	0.00003	0.00001	0.00006
45	SASH, DOOR & OTHER MILLWORK IND.	0.0264	0.0121	0.0518	0.2148	0.4157	0.00006	0.00003	0.00012
46	WOODEN BOX & COFFIN INDUSTRIES	0.0173	0.0086	0.0303	0.1608	0.2820	0.00001	0.00000	0.00002
47	OTHER WOOD INDUSTRIES	0.0457	0.0144	0.0837	0.4184	0.7639	0.00004	0.00001	0.00007
48	HOUSEHOLD FURNITURE INDUSTRIES	0.0154	0.0114	0.0266	0.1316	0.2404	0.00004	0.00003	0.00008
49	OFFICE FURNITURE INDUSTRIES	0.0470	0.0084	0.1383	0.4504	0.7833	0.00003	0.00001	0.00009

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1961-1971 FOR TWO YEAR TIME INTERVALS (CONTINUED)

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BDUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTRDPY
50	OTHER FURNITURE & FIXTURE IND.	0.0207	0.0111	0.0306	0.1742	0.3445	0.00004	0.00002	0.00006
51	PULP & PAPER INDUSTRIES	0.0081	0.0042	0.0140	0.0649	0.1113	0.00018	0.00009	0.00031
52	ASPHALT ROOFING INDUSTRY	0.0308	0.0093	0.1571	0.3317	0.4985	0.00002	0.00001	0.00007
53	PAPER BOX & BAG INDUSTRIES	0.0110	0.0049	0.0234	0.0946	0.1593	0.00005	0.00002	0.00011
54	OTHER CONVERTED PAPER PRODUCTS IND.	0.0170	0.0075	0.0310	0.1414	0.2637	0.00005	0.00002	0.00010
55	PRINTING & PUBLISHING IND.	0.0044	0.0017	0.0085	0.0334	0.0597	0.00004	0.00002	0.00008
56	PLATEMAKING, TYPESETTING & BINDERY	0.0161	0.0033	0.0318	0.1411	0.2584	0.00002	0.00000	0.00003
57	PRIMARY STEEL INDUSTRIES	0.0151	0.0083	0.0217	0.1195	0.2137	0.00020	0.00011	0.00028
58	STEEL PIPE & TUBE INDUSTRY	0.0366	0.0132	0.0857	0.3270	0.5676	0.00009	0.00003	0.00020
59	IRON FOUNDRIES	0.0243	0.0081	0.0481	0.2144	0.3727	0.00004	0.00001	0.00008
60	NON-FERROUS SMELTING & REFINING IND	0.0178	0.0087	0.0324	0.1268	0.2238	0.00027	0.00012	0.00049
61	ALUMINUM ROLLING CASTING, EXTRUDING	0.0848	0.0150	0.3059	0.7655	1.2364	0.00016	0.00003	0.00059
62	COPPER ROLLING CASTING & EXTRUDING	0.0249	0.0078	0.0439	0.2158	0.3578	0.00004	0.00002	0.00006
63	OTHER METAL ROLLING, CASTING ETC.	0.0244	0.0133	0.0378	0.2201	0.3731	0.00003	0.00001	0.00005
64	POWER BOILER & STRUCT. METAL IND.	0.0148	0.0058	0.0279	0.1169	0.2098	0.00008	0.00003	0.00015
65	ORNAMENTAL & ARCH. METAL PROD. IND.	0.0243	0.0111	0.0388	0.2044	0.3535	0.00006	0.00003	0.00009
66	STAMPED, PRESSED & COATED METALS	0.0147	0.0102	0.0216	0.1134	0.1991	0.00010	0.00007	0.00014
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0116	0.0038	0.0251	0.0976	0.1626	0.00004	0.00002	0.00009
68	HARDWARE, TOOL & CUTLERY INDUSTRIES	0.0325	0.0115	0.0840	0.2776	0.4894	0.00007	0.00003	0.00018
69	HEATING EQUIPMENT INDUSTRY	0.0375	0.0104	0.0877	0.3272	0.6088	0.00004	0.00001	0.00010
70	MACHINE SHOPS INDUSTRY	0.0112	0.0032	0.0350	0.0954	0.1738	0.00002	0.00001	0.00005
71	OTHER METAL FABRICATING INDUSTRIES	0.0197	0.0082	0.0382	0.1579	0.2882	0.00008	0.00003	0.00015
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0218	0.0091	0.0375	0.1806	0.3268	0.00006	0.00002	0.00009
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0763	0.0247	0.1453	0.7479	1.2915	0.00004	0.00001	0.00006
74	OTHER MACHINERY & EQUIPMENT IND.	0.0124	0.0063	0.0206	0.0949	0.1797	0.00011	0.00006	0.00016
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0142	0.0090	0.0304	0.1192	0.2183	0.00006	0.00004	0.00010
76	MOTOR VEHICLE INDUSTRY	0.0141	0.0026	0.0362	0.1007	0.1920	0.00039	0.00007	0.00098
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.0375	0.0113	0.0873	0.3345	0.6237	0.00006	0.00001	0.00015
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0325	0.0152	0.0507	0.2509	0.4792	0.00033	0.00013	0.00054
79	RAILROAD ROLLING STOCK INDUSTRY	0.0709	0.0201	0.1734	0.6336	1.1446	0.00012	0.00004	0.00029
80	SHIPBUILDING AND REPAIR INDUSTRY	0.0383	0.0189	0.0676	0.3435	0.6035	0.00009	0.00003	0.00018
81	MISC. TRANSPORTATION EQUIPMENT IND.	0.0748	0.0154	0.1422	0.7682	1.2810	0.00010	0.00001	0.00016
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.0236	0.0108	0.0623	0.2067	0.3605	0.00003	0.00002	0.00009
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0282	0.0071	0.1004	0.2236	0.4184	0.00008	0.00002	0.00030
84	RECORD PLAYERS, RADIO & TV RECEIVER	0.0220	0.0059	0.0328	0.1865	0.3195	0.00005	0.00001	0.00007
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0253	0.0063	0.0469	0.1943	0.3474	0.00016	0.00004	0.00031
86	OFFICE, STORE & BUSINESS MACHINES	0.0670	0.0037	0.3417	0.5582	0.8785	0.00016	0.00001	0.00066
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0252	0.0096	0.0457	0.2164	0.3688	0.00007	0.00003	0.00012
88	BATTERY INDUSTRY	0.0297	0.0152	0.0646	0.2734	0.4661	0.00002	0.00001	0.00004
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0116	0.0058	0.0226	0.0895	0.1601	0.00008	0.00004	0.00016
90	CLAY PRODUCTS INDUSTRY	0.0149	0.0085	0.0306	0.1404	0.2417	0.00001	0.00001	0.00002
91	CEMENT INDUSTRY	0.0164	0.0040	0.0386	0.1541	0.2631	0.00002	0.00001	0.00006
92	CONCRETE PRODUCTS INDUSTRY	0.0099	0.0067	0.0131	0.0822	0.1587	0.00002	0.00001	0.00003
93	READY-MIX CONCRETE INDUSTRY	0.0155	0.0044	0.0272	0.1357	0.2401	0.00003	0.00001	0.00006
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0135	0.0070	0.0334	0.1315	0.2006	0.00003	0.00001	0.00006
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0131	0.0056	0.0248	0.1091	0.1918	0.00003	0.00001	0.00006
96	REFINED PETROLEUM & COAL PRODUCTS	0.0048	0.0026	0.0091	0.0344	0.0610	0.00008	0.00005	0.00016
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0226	0.0142	0.0306	0.1900	0.3255	0.00019	0.00012	0.00026
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0295	0.0185	0.0432	0.2782	0.4882	0.00006	0.00004	0.00009

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 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1961-1971 FOR TWO YEAR TIME INTERVALS (CONTINUED)

A2-7

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0259	0.0085	0.0636	0.2144	0.3733	0.00008	0.00002	0.00020
100	PAINT AND VARNISH INDUSTRY	0.0191	0.0087	0.0502	0.1576	0.2901	0.00004	0.00002	0.00011
101	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0215	0.0062	0.0393	0.1780	0.3188	0.00005	0.00001	0.00009
102	TOILET PREPARATIONS INDUSTRY	0.0220	0.0068	0.0607	0.1968	0.3452	0.00003	0.00001	0.00007
103	CHEMICAL & CHEMICAL PRODUCTS NEC	0.0300	0.0121	0.0495	0.2395	0.4255	0.00014	0.00006	0.00023
104	JEWELLERY & PRECIOUS METAL IND.	0.0180	0.0096	0.0333	0.1607	0.2756	0.00002	0.00001	0.00003
105	SPORTING GOODS & TOY INDUSTRIES	0.0300	0.0062	0.0749	0.2598	0.5053	0.00003	0.00001	0.00008
106	SIGN AND DISPLAY INDUSTRY	0.0395	0.0059	0.1283	0.3527	0.6629	0.00003	0.00000	0.00009
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.0843	0.0327	0.1393	0.8023	1.3756	0.00005	0.00002	0.00009
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0115	0.0047	0.0192	0.0936	0.1589	0.00006	0.00002	0.00010
109	REPAIR CONSTRUCTION	0.0118	0.0043	0.0316	0.1026	0.1713	0.00017	0.00007	0.00040
110	RESIDENTIAL CONSTRUCTION	0.0207	0.0126	0.0318	0.1626	0.2877	0.00054	0.00033	0.00083
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0171	0.0090	0.0256	0.1314	0.2438	0.00045	0.00021	0.00078
112	Road, Highway & Airstrip Const.	0.0206	0.0090	0.0386	0.1657	0.2983	0.00015	0.00006	0.00024
113	GAS & OIL FACILITY CONSTRUCTION	0.0379	0.0167	0.0671	0.3289	0.5573	0.00022	0.00010	0.00039
114	DAMS & IRRIGATION PROJECTS	0.0180	0.0062	0.0290	0.1448	0.2754	0.00013	0.00004	0.00019
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0117	0.0076	0.0169	0.1036	0.1759	0.00003	0.00002	0.00005
116	OTHER ENGINEERING CONSTRUCTION	0.0205	0.0087	0.0316	0.1699	0.2999	0.00017	0.00007	0.00026
117	CONSTRUCTION, OTHER ACTIVITIES	0.0095	0.0019	0.0259	0.0945	0.1584	0.00001	0.00000	0.00002
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0079	0.0021	0.0225	0.0720	0.1432	0.00004	0.00001	0.00009
119	RAILWAY TRANSPORT & REL. SERVICES	0.0067	0.0030	0.0105	0.0535	0.0855	0.00012	0.00005	0.00017
120	WATER TRANSPORT & REL. SERVICES	0.0102	0.0055	0.0183	0.0878	0.1646	0.00007	0.00004	0.00013
121	TRUCK TRANSPORT INDUSTRIES	0.0054	0.0018	0.0096	0.0584	0.0957	0.00007	0.00002	0.00013
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0081	0.0019	0.0127	0.0752	0.1269	0.00001	0.00000	0.00003
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0161	0.0037	0.0353	0.2094	0.3117	0.00001	0.00000	0.00003
124	TAXICAB INDUSTRY	0.0041	0.0010	0.0098	0.0456	0.0729	0.00001	0.00000	0.00001
125	OTHER TRANSPORT & SERV. TO TRANSP.	0.0146	0.0038	0.0373	0.1848	0.2667	0.00003	0.00001	0.00006
126	HIGHWAY & BRIDGE MAINTENANCE IND.	0.0279	0.0061	0.0689	0.3299	0.5273	0.00001	0.00000	0.00002
127	Pipeline Transport Industries	0.0272	0.0052	0.0858	0.2380	0.4477	0.00012	0.00002	0.00040
128	STORAGE AND WAREHOUSING INDUSTRIES	0.0098	0.0039	0.0148	0.1054	0.1903	0.00002	0.00001	0.00003
129	TELECOMMUNICATION BROADCASTING IND.	0.0075	0.0044	0.0152	0.0841	0.1366	0.00002	0.00001	0.00005
130	TELECOMMUNICATION CARRIERS & OTHER	0.0031	0.0004	0.0053	0.0268	0.0496	0.00004	0.00000	0.00008
131	POSTAL SERVICE INDUSTRY	0.0059	0.0022	0.0145	0.0568	0.0957	0.00002	0.00001	0.00004
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0066	0.0015	0.0158	0.0624	0.1035	0.00010	0.00002	0.00021
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0077	0.0010	0.0135	0.0773	0.1323	0.00002	0.00000	0.00003
134	OTHER UTILITY INDUSTRIES NEC	0.0324	0.0075	0.0558	0.4169	0.6230	0.00001	0.00000	0.00002
135	WHOLESALE TRADE INDUSTRIES	0.0037	0.0023	0.0052	0.0247	0.0456	0.00015	0.00009	0.00021
136	RETAIL TRADE INDUSTRIES	0.0035	0.0017	0.0058	0.0240	0.0426	0.00021	0.00010	0.00034
137	BANKS, CREDIT UNION & OTH. DEP INST	0.0144	0.0017	0.0387	0.1146	0.2291	0.00012	0.00001	0.00036
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0061	0.0015	0.0214	0.0538	0.1072	0.00026	0.00006	0.00094
139	INSURANCE INDUSTRIES	0.0103	0.0061	0.0190	0.0809	0.1714	0.00008	0.00005	0.00017
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0004	0.0000	0.0018	0.0036	0.0081	0.00001	0.00000	0.00007
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0146	0.0041	0.0320	0.1429	0.2440	0.00005	0.00001	0.00018
143	PROFESSIONAL BUSINESS SERVICES	0.0052	0.0005	0.0151	0.0460	0.0803	0.00005	0.00000	0.00014
144	ADVERTISING SERVICES	0.0099	0.0011	0.0234	0.1026	0.1837	0.00001	0.00000	0.00003
145	EDUCATIONAL SERVICE INDUSTRIES	0.0069	0.0031	0.0145	0.0589	0.1203	0.00001	0.00000	0.00002
146	HOSPITALS	0.0152	0.0048	0.0302	0.1577	0.2711	0.00001	0.00000	0.00001
147	OTHER HEALTH SERVICES	0.0044	0.0012	0.0223	0.0420	0.0716	0.00004	0.00001	0.00024

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1961-1971 FOR TWO YEAR TIME INTERVALS (CONTINUED)

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0070	0.0020	0.0173	0.0604	0.1056	0.00015	0.00004	0.00037
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0148	0.0027	0.0240	0.1508	0.2608	0.00002	0.00000	0.00004
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0293	0.0043	0.0870	0.2828	0.4709	0.00008	0.00001	0.00027
151	LAUNDRIES & CLEANERS	0.0033	0.0009	0.0059	0.0354	0.0587	0.00001	0.00000	0.00002
152	OTHER PERSONAL SERVICES	0.0057	0.0014	0.0095	0.0535	0.0899	0.00002	0.00001	0.00004
153	PHOTOGRAPHERS	0.0068	0.0011	0.0183	0.0655	0.1174	0.00000	0.00000	0.00001
154	MISC. SERVICE INDUSTRIES	0.0177	0.0018	0.0425	0.1606	0.2660	0.00010	0.00001	0.00026
155	OPERATING SUPPLIES	0.0334	0.0098	0.1072	0.2694	0.5232	0.00082	0.00025	0.00266
156	OFFICE SUPPLIES	0.0033	0.0012	0.0063	0.0505	0.0816	0.00002	0.00001	0.00004
157	CAFETERIA SUPPLIES	0.0019	0.0005	0.0033	0.0209	0.0375	0.00000	0.00000	0.00001
158	LABORATORY SUPPLIES	0.0147	0.0049	0.0409	0.1744	0.2744	0.00002	0.00001	0.00005
159	TRAVEL & ENTERTAINMENT	0.0047	0.0022	0.0068	0.0551	0.0930	0.00004	0.00002	0.00006
160	ADVERTISING & PROMOTION	0.0028	0.0010	0.0062	0.0413	0.0729	0.00003	0.00001	0.00006
161	TRANSPORTATION MARGINS	0.0041	0.0004	0.0121	0.0773	0.1440	0.00010	0.00001	0.00032

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTRDPY RESULTS FROM AN INDUSTRY  
 DECDMPDSITON DF CDNSTANT PRICE INPUTS AT THE L LEVEL DF AGGREGATION  
 FDR THE TIME SERIES 1971-1981 FDR DNE YEAR TIME INTERVALS

CDOE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTRDPY	RAW ENTRDPY	RAW ENTROPY	STANDARD. ENTRDPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTRDPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0061	0.0021	0.0102	0.0553	0.0901	0.00018	0.00006	0.00031
2	FISHING & TRAPPING INDUSTRIES	0.0075	0.0020	0.0188	0.0691	0.1325	0.00001	0.00000	0.00002
3	LOGGING & FORESTRY INDUSTRIES	0.0041	0.0010	0.0077	0.0399	0.0670	0.00004	0.00001	0.00006
4	GOLD MINES	0.0197	0.0053	0.0403	0.1782	0.3016	0.00001	0.00000	0.00002
5	OTHER METAL MINES	0.0110	0.0040	0.0217	0.0849	0.1541	0.00009	0.00003	0.00018
6	IRDN MINES	0.0206	0.0062	0.0700	0.1741	0.3128	0.00007	0.00002	0.00025
7	ASBESTOS MINES	0.0209	0.0070	0.0649	0.1707	0.3631	0.00002	0.00001	0.00006
8	NDN-METAL MINES EX COAL & ASBESTDS	0.0132	0.0038	0.0268	0.1100	0.2018	0.00002	0.00001	0.00004
9	SALT MINES	0.0109	0.0040	0.0217	0.1085	0.1767	0.00000	0.00000	0.00001
10	COAL MINES	0.0402	0.0122	0.0984	0.3735	0.6704	0.00004	0.00001	0.00008
11	CRUDE PETRDLUE & NATURAL GAS	0.0119	0.0022	0.0291	0.0927	0.1674	0.00013	0.00003	0.00030
12	QUARRY & SAND PIT INDUSTRIES	0.0086	0.0045	0.0129	0.0843	0.1538	0.00001	0.00001	0.00002
13	SERVICE RELATED TD MINERAL EXTRACT.	0.0085	0.0026	0.0160	0.0870	0.1548	0.00003	0.00001	0.00008
14	MEAT & MEAT PRDDUCTS (EXC. POULTRY)	0.0060	0.0020	0.0133	0.0416	0.0741	0.00008	0.00003	0.00017
15	POULTRY PRODUCTS INDUSTRY	0.0088	0.0021	0.0147	0.0700	0.1191	0.00002	0.00000	0.00003
16	FISH PRDDUCTS INDUSTRY	0.0115	0.0049	0.0197	0.0896	0.1586	0.00003	0.00001	0.00004
17	FRUIT AND VEGETABLE INDUSTRIES	0.0168	0.0064	0.0337	0.1278	0.2332	0.00006	0.00002	0.00013
18	DAIRY PRODUCTS INDUSTRIES	0.0057	0.0023	0.0118	0.0427	0.0768	0.00005	0.00002	0.00010
19	FEED INDUSTRY	0.0235	0.0057	0.0826	0.1778	0.3261	0.00010	0.00002	0.00035
20	VEGETABLE OIL MILLS (EXC. CDRN OIL)	0.0276	0.0017	0.1324	0.2305	0.3810	0.00003	0.00000	0.00013
21	BISCUIT INDUSTRY	0.0247	0.0115	0.0438	0.2122	0.3866	0.00002	0.00001	0.00004
22	BREAD & OTHER BAKERY PRDDUCTS INO.	0.0182	0.0047	0.0440	0.1393	0.2567	0.00004	0.00001	0.00010
23	CANE & BEET SUGAR INDUSTRY	0.0217	0.0053	0.0685	0.1853	0.3004	0.00002	0.00001	0.00007
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0116	0.0072	0.0206	0.0812	0.1507	0.00010	0.00006	0.00017
25	SOFT DRINK INDUSTRY	0.0082	0.0027	0.0152	0.0664	0.1308	0.00002	0.00001	0.00003
26	DISTILLERY PRODUCTS INDUSTRY	0.0057	0.0034	0.0156	0.0482	0.0883	0.00001	0.00001	0.00004
27	BREWERY PRDDUCTS INDUSTRY	0.0051	0.0016	0.0160	0.0423	0.0769	0.00001	0.00000	0.00005
28	WINE INDUSTRY	0.0280	0.0111	0.0530	0.2556	0.4551	0.00001	0.00000	0.00002
29	TOBACCO PRDDUCTS INDUSTRIES	0.0059	0.0026	0.0133	0.0495	0.0884	0.00002	0.00001	0.00004
30	RUBBER PRODUCTS INDUSTRIES	0.0172	0.0047	0.0241	0.1287	0.2333	0.00008	0.00002	0.00011
31	PLASTIC PRODUCTS INDUSTRIES	0.0168	0.0093	0.0371	0.1263	0.2183	0.00007	0.00004	0.00015
32	LEATHER TANNERIES	0.0288	0.0057	0.0716	0.2653	0.4381	0.00001	0.00000	0.00003
33	FOOTWEAR INDUSTRY	0.0125	0.0087	0.0249	0.0996	0.1727	0.00002	0.00001	0.00004
34	MISC. LEATHER & ALLIED PROD. IND.	0.0395	0.0150	0.1101	0.3563	0.6460	0.00002	0.00001	0.00006
35	MAN-MADE FIBRE YARN & WOVEN CLDTH	0.0143	0.0067	0.0407	0.1095	0.2072	0.00007	0.00003	0.00023
36	WODL YARN & WOVEN CLOTH INDUSTRY	0.0373	0.0135	0.1254	0.3220	0.5768	0.00002	0.00001	0.00007
37	BROAD KNITTED FABRIC INDUSTRY	0.0152	0.0036	0.0439	0.1260	0.2311	0.00002	0.00000	0.00006
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0331	0.0177	0.0637	0.2607	0.4577	0.00008	0.00005	0.00016
39	CONTRACT TEXTILE DYEING & FINISHING	0.0831	0.0323	0.2898	0.7694	1.3332	0.00003	0.00001	0.00011
40	CARPET, MAT & RUG INDUSTRY	0.0153	0.0065	0.0552	0.1336	0.2377	0.00003	0.00001	0.00009
41	CLOTHING INDUSTRIES EXC. HOSIERY	0.0073	0.0045	0.0173	0.0501	0.0960	0.00008	0.00004	0.00020
42	HOSIERY INDUSTRY	0.0276	0.0065	0.0946	0.2398	0.4326	0.00002	0.00000	0.00006
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0046	0.0013	0.0090	0.0333	0.0615	0.00004	0.00001	0.00009
44	VENEER AND PLYWOOD INDUSTRIES	0.0076	0.0026	0.0120	0.0639	0.1083	0.00001	0.00000	0.00002
45	SASH, DOOR & OTHER MILLWDRK IND.	0.0195	0.0078	0.0421	0.1499	0.2834	0.00006	0.00002	0.00013
46	WOODEN BDX & CDFFIN INDUSTRIES	0.0182	0.0039	0.0479	0.1621	0.2917	0.00001	0.00000	0.00002
47	OTHER WOOD INDUSTRIES	0.0366	0.0140	0.0925	0.3153	0.5758	0.00003	0.00001	0.00007
48	HOUSEHLD FURNITURE INDUSTRIES	0.0269	0.0078	0.0927	0.2182	0.4292	0.00007	0.00002	0.00023
49	OFFICE FURNITURE INDUSTRIES	0.0339	0.0111	0.0888	0.2950	0.5648	0.00002	0.00001	0.00007

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-10

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
50	OTHER FURNITURE & FIXTURE IND.	0.0240	0.0120	0.0414	0.1927	0.3820	0.00004	0.00002	0.00007
51	PULP & PAPER INDUSTRIES	0.0072	0.0038	0.0180	0.0496	0.0966	0.00012	0.00006	0.00028
52	ASPHALT ROOFING INDUSTRY	0.0101	0.0041	0.0199	0.1005	0.1633	0.00000	0.00000	0.00001
53	PAPER BOX & BAG INDUSTRIES	0.0076	0.0026	0.0178	0.0603	0.1084	0.00003	0.00001	0.00008
54	OTHER CONVERTED PAPER PRODUCTS IND.	0.0201	0.0063	0.0460	0.1590	0.2937	0.00005	0.00002	0.00012
55	PRINTING & PUBLISHING IND.	0.0056	0.0024	0.0170	0.0398	0.0752	0.00006	0.00003	0.00019
56	PLATEMAKING, TYPESETTING & BINDERY	0.0125	0.0020	0.0227	0.1051	0.1921	0.00001	0.00000	0.00003
57	PRIMARY STEEL INDUSTRIES	0.0114	0.0071	0.0151	0.0843	0.1584	0.00013	0.00007	0.00018
58	STEEL PIPE & TUBE INDUSTRY	0.0583	0.0166	0.2294	0.5046	0.8883	0.00010	0.00003	0.00038
59	IRON FOUNDRIES	0.0224	0.0125	0.0433	0.1818	0.3316	0.00003	0.00001	0.00006
60	NON-FERROUS SMELTING & REFINING IND	0.0163	0.0060	0.0326	0.1240	0.2213	0.00018	0.00006	0.00036
61	ALUMINUM ROLLING CASTING, EXTRUDING	0.0146	0.0057	0.0292	0.1255	0.2096	0.00003	0.00001	0.00005
62	COPPER ROLLING CASTING & EXTRUDING	0.0211	0.0044	0.0408	0.1693	0.2941	0.00003	0.00001	0.00006
63	OTHER METAL ROLLING, CASTING ETC.	0.0281	0.0144	0.0791	0.2407	0.4271	0.00003	0.00001	0.00008
64	POWER BOILER & STRUCT. METAL IND.	0.0183	0.0096	0.0271	0.1364	0.2591	0.00008	0.00004	0.00013
65	ORNAMENTAL & ARCH. METAL PROD. IND.	0.0169	0.0071	0.0444	0.1323	0.2448	0.00004	0.00002	0.00010
66	STAMPED, PRESSED & COATED METALS	0.0347	0.0137	0.0985	0.2572	0.4557	0.00021	0.00009	0.00062
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0161	0.0085	0.0265	0.1245	0.2274	0.00005	0.00003	0.00008
68	HARDWARE, TOOL & CUTLERY INDUSTRIES	0.0277	0.0135	0.0499	0.2272	0.4223	0.00006	0.00003	0.00011
69	HEATING EQUIPMENT INDUSTRY	0.0436	0.0258	0.0692	0.3811	0.7083	0.00003	0.00002	0.00005
70	MACHINE SHOPS INDUSTRY	0.0237	0.0098	0.0579	0.1931	0.3526	0.00003	0.00001	0.00007
71	OTHER METAL FABRICATING INDUSTRIES	0.0246	0.0091	0.0466	0.1911	0.3500	0.00008	0.00004	0.00017
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0312	0.0091	0.1092	0.2447	0.4734	0.00008	0.00003	0.00022
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0402	0.0161	0.1000	0.3740	0.6587	0.00003	0.00001	0.00007
74	OTHER MACHINERY & EQUIPMENT IND.	0.0202	0.0087	0.0433	0.1494	0.2936	0.00019	0.00008	0.00042
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0178	0.0039	0.0618	0.1470	0.2703	0.00006	0.00001	0.00020
76	MOTOR VEHICLE INDUSTRY	0.0071	0.0026	0.0131	0.0497	0.0969	0.00020	0.00008	0.00035
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.0344	0.0132	0.0674	0.2868	0.5430	0.00010	0.00003	0.00019
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0165	0.0087	0.0276	0.1150	0.2186	0.00021	0.00012	0.00029
79	RAILROAD ROLLING STOCK INDUSTRY	0.0493	0.0208	0.0831	0.4078	0.7604	0.00009	0.00003	0.00016
80	SHIPBUILDING AND REPAIR INDUSTRY	0.0513	0.0201	0.0935	0.4178	0.7876	0.00009	0.00004	0.00016
81	MISC. TRANSPORTATION EQUIPMENT IND.	0.0413	0.0199	0.0609	0.3400	0.6513	0.00004	0.00003	0.00007
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.0512	0.0204	0.0830	0.4212	0.8073	0.00006	0.00003	0.00010
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0312	0.0075	0.0636	0.2520	0.4859	0.00007	0.00001	0.00014
84	RECORD PLAYERS, RADIO & TV RECEIVER	0.0288	0.0059	0.0641	0.2425	0.4446	0.00003	0.00001	0.00006
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0289	0.0073	0.0649	0.2257	0.4131	0.00017	0.00004	0.00043
86	OFFICE, STORE & BUSINESS MACHINES	0.0213	0.0080	0.0651	0.1680	0.2930	0.00006	0.00002	0.00013
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0189	0.0044	0.0524	0.1651	0.2740	0.00005	0.00001	0.00013
88	BATTERY INDUSTRY	0.0323	0.0102	0.0747	0.2927	0.5071	0.00002	0.00000	0.00004
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0184	0.0064	0.0290	0.1369	0.2572	0.00011	0.00004	0.00017
90	CLAY PRODUCTS INDUSTRY	0.0261	0.0086	0.0637	0.2356	0.4222	0.00001	0.00000	0.00004
91	CEMENT INDUSTRY	0.0144	0.0049	0.0511	0.1328	0.2335	0.00002	0.00001	0.00007
92	CONCRETE PRODUCTS INDUSTRY	0.0143	0.0069	0.0225	0.1152	0.2151	0.00002	0.00001	0.00004
93	READY-MIX CONCRETE INDUSTRY	0.0070	0.0015	0.0213	0.0572	0.1049	0.00001	0.00000	0.00005
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0122	0.0053	0.0303	0.1045	0.1785	0.00002	0.00001	0.00006
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0254	0.0168	0.0440	0.1995	0.3614	0.00007	0.00004	0.00012
96	REFINED PETROLEUM & COAL PRODUCTS	0.0058	0.0021	0.0104	0.0408	0.0709	0.00009	0.00003	0.00016
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0267	0.0167	0.0424	0.2043	0.3770	0.00018	0.00010	0.00027
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0340	0.0189	0.0476	0.2803	0.5447	0.00006	0.00003	0.00011

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-11

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTRDPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0205	0.0103	0.0525	0.1635	0.2908	0.00006	0.00003	0.00016
100	PAINT AND VARNISH INDUSTRY	0.0159	0.0049	0.0306	0.1310	0.2405	0.00003	0.00001	0.00004
101	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0297	0.0104	0.0714	0.2398	0.4334	0.00006	0.00002	0.00014
102	TOILET PREPARATIONS INDUSTRY	0.0254	0.0073	0.0545	0.2126	0.3834	0.00003	0.00001	0.00007
103	CHEMICAL & CHEMICAL PRODUCTS NEC	0.0407	0.0186	0.0798	0.3072	0.5645	0.00015	0.00007	0.00030
104	JEWELLERY & PRECIOUS METAL IND.	0.0369	0.0101	0.0751	0.3148	0.5678	0.00002	0.00001	0.00005
105	SPORTING GOODS & TOY INDUSTRIES	0.0342	0.0157	0.0625	0.2763	0.5052	0.00005	0.00002	0.00009
106	SIGN AND DISPLAY INDUSTRY	0.0245	0.0050	0.0995	0.2115	0.3673	0.00001	0.00000	0.00005
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.0426	0.0217	0.0776	0.3792	0.6759	0.00003	0.00001	0.00006
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0316	0.0110	0.0642	0.2352	0.4141	0.00014	0.00005	0.00028
109	REPAIR CONSTRUCTION	0.0068	0.0024	0.0187	0.0577	0.1004	0.00009	0.00003	0.00025
110	RESIDENTIAL CONSTRUCTION	0.0076	0.0027	0.0118	0.0590	0.1039	0.00025	0.00010	0.00044
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0073	0.0017	0.0198	0.0547	0.1002	0.00016	0.00003	0.00048
112	Road, HIGHWAY & AIRSTRIP CONST.	0.0069	0.0015	0.0183	0.0531	0.0983	0.00004	0.00001	0.00011
113	GAS & OIL FACILITY CONSTRUCTION	0.0181	0.0058	0.0457	0.1561	0.2586	0.00012	0.00005	0.00029
114	DAMS & IRRIGATION PROJECTS	0.0080	0.0026	0.0190	0.0623	0.1169	0.00007	0.00002	0.00019
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0080	0.0027	0.0163	0.0694	0.1165	0.00002	0.00001	0.00005
116	OTHER ENGINEERING CONSTRUCTION	0.0094	0.0019	0.0204	0.0736	0.1311	0.00009	0.00002	0.00023
117	CONSTRUCTION, OTHER ACTIVITIES	0.0035	0.0024	0.0049	0.0346	0.0572	0.00000	0.00000	0.00001
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0046	0.0022	0.0102	0.0432	0.0834	0.00004	0.00002	0.00007
119	RAILWAY TRANSPORT & REL. SERVICES	0.0069	0.0011	0.0400	0.0571	0.0899	0.00009	0.00001	0.00050
120	WATER TRANSPORT & REL. SERVICES	0.0059	0.0026	0.0086	0.0489	0.1022	0.00003	0.00001	0.00004
121	TRUCK TRANSPORT INDUSTRIES	0.0070	0.0025	0.0190	0.0793	0.1264	0.00010	0.00003	0.00026
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0077	0.0011	0.0177	0.0718	0.1247	0.00002	0.00000	0.00004
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0075	0.0032	0.0137	0.0904	0.1470	0.00001	0.00000	0.00001
124	TAXICAB INDUSTRY	0.0027	0.0006	0.0090	0.0280	0.0468	0.00000	0.00000	0.00001
125	OTHER TRANSPORT & SERV. TO TRANSP.	0.0107	0.0038	0.0219	0.1298	0.2063	0.00004	0.00002	0.00008
126	HIGHWAY & BRIDGE MAINTENANCE IND.	0.0244	0.0034	0.0568	0.3157	0.4965	0.00001	0.00000	0.00002
127	PIPELINE TRANSPORT INDUSTRIES	0.0096	0.0016	0.0507	0.0918	0.1681	0.00004	0.00001	0.00024
128	STORAGE AND WAREHOUSE INDUSTRIES	0.0027	0.0010	0.0062	0.0269	0.0502	0.00000	0.00000	0.00001
129	TELECOMMUNICATION BROADCASTING IND.	0.0036	0.0017	0.0066	0.0374	0.0637	0.00002	0.00001	0.00003
130	TELECOMMUNICATION CARRIERS & OTHER	0.0015	0.0004	0.0045	0.0149	0.0241	0.00002	0.00001	0.00006
131	POSTAL SERVICE INDUSTRY	0.0090	0.0025	0.0209	0.0810	0.1465	0.00003	0.00001	0.00007
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0033	0.0018	0.0056	0.0293	0.0531	0.00005	0.00003	0.00008
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0050	0.0008	0.0175	0.0504	0.0881	0.00001	0.00000	0.00004
134	OTHER UTILITY INDUSTRIES NEC	0.0184	0.0008	0.0664	0.2050	0.3702	0.00001	0.00000	0.00004
135	WHOLESALE TRADE INDUSTRIES	0.0016	0.0009	0.0027	0.0101	0.0158	0.00007	0.00004	0.00012
136	RETAIL TRADE INDUSTRIES	0.0026	0.0011	0.0047	0.0163	0.0304	0.00015	0.00007	0.00027
137	BANKS, CREDIT UNION & OTH. DEP INST	0.0032	0.0008	0.0094	0.0296	0.0533	0.00004	0.00001	0.00013
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0026	0.0007	0.0055	0.0244	0.0472	0.00013	0.00004	0.00030
139	INSURANCE INDUSTRIES	0.0049	0.0019	0.0141	0.0361	0.0781	0.00005	0.00002	0.00016
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0004	0.0000	0.0020	0.0041	0.0091	0.00002	0.00000	0.00009
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0049	0.0009	0.0169	0.0415	0.0751	0.00005	0.00001	0.00024
143	PROFESSIONAL BUSINESS SERVICES	0.0033	0.0011	0.0072	0.0300	0.0520	0.00004	0.00001	0.00009
144	ADVERTISING SERVICES	0.0022	0.0005	0.0046	0.0216	0.0409	0.00000	0.00000	0.00001
145	EDUCATIONAL SERVICE INDUSTRIES	0.0037	0.0010	0.0137	0.0292	0.0605	0.00001	0.00000	0.00002
146	HOSPITALS	0.0052	0.0012	0.0103	0.0514	0.0908	0.00000	0.00000	0.00000
147	OTHER HEALTH SERVICES	0.0016	0.0006	0.0033	0.0148	0.0250	0.00002	0.00001	0.00005

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1971-1981 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-12

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0027	0.0007	0.0081	0.0225	0.0396	0.00007	0.00002	0.00020
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0041	0.0011	0.0070	0.0390	0.0700	0.00001	0.00000	0.00001
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0046	0.0024	0.0128	0.0447	0.0718	0.00002	0.00001	0.00005
151	LAUNDRIES & CLEANERS	0.0040	0.0009	0.0128	0.0439	0.0705	0.00001	0.00000	0.00003
152	OTHER PERSONAL SERVICES	0.0025	0.0005	0.0085	0.0238	0.0384	0.00001	0.00000	0.00003
153	PHOTOGRAPHERS	0.0055	0.0005	0.0219	0.0510	0.0931	0.00000	0.00000	0.00001
154	MISC. SERVICE INDUSTRIES	0.0031	0.0007	0.0062	0.0270	0.0469	0.00003	0.00001	0.00006
155	OPERATING SUPPLIES	0.0116	0.0052	0.0255	0.0951	0.1816	0.00023	0.00010	0.00051
156	OFFICE SUPPLIES	0.0016	0.0001	0.0039	0.0269	0.0410	0.00001	0.00000	0.00002
157	CAFETERIA SUPPLIES	0.0010	0.0003	0.0020	0.0114	0.0200	0.00000	0.00000	0.00000
158	LABORATORY SUPPLIES	0.0091	0.0038	0.0368	0.1046	0.1706	0.00002	0.00001	0.00007
159	TRAVEL & ENTERTAINMENT	0.0033	0.0011	0.0072	0.0355	0.0635	0.00004	0.00001	0.00008
160	ADVERTISING & PROMOTION	0.0015	0.0005	0.0039	0.0214	0.0377	0.00001	0.00001	0.00004
161	TRANSPORTATION MARGINS	0.0024	0.0005	0.0053	0.0612	0.0967	0.00005	0.00001	0.00012

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR TWO YEAR TIME INTERVALS

A2-13

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTRDPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0113	0.0059	0.0164	0.1035	0.1687	0.00033	0.00017	0.00048
2	FISHING & TRAPPING INDUSTRIES	0.0138	0.0065	0.0276	0.1283	0.2473	0.00002	0.00001	0.00003
3	LOGGING & FORESTRY INDUSTRIES	0.0076	0.0014	0.0154	0.0732	0.1231	0.00007	0.00001	0.00013
4	GOLD MINES	0.0472	0.0194	0.0877	0.4233	0.7120	0.00002	0.00001	0.00004
5	OTHER METAL MINES	0.0200	0.0051	0.0399	0.1529	0.2774	0.00017	0.00005	0.00046
6	IRON MINES	0.0528	0.0176	0.1131	0.4399	0.7983	0.00019	0.00006	0.00041
7	ASBESTOS MINES	0.0392	0.0134	0.1065	0.3178	0.6731	0.00004	0.00002	0.00010
8	NON-METAL MINES EX COAL & ASBESTOS	0.0236	0.0071	0.0514	0.1978	0.3624	0.00003	0.00001	0.00007
9	SALT MINES	0.0178	0.0090	0.0335	0.1777	0.2890	0.00000	0.00000	0.00001
10	CDAL MINES	0.0929	0.0278	0.2880	0.8550	1.5445	0.00008	0.00003	0.00024
11	CRUDE PETROLEUM & NATURAL GAS	0.0269	0.0056	0.0582	0.2081	0.3741	0.00029	0.00008	0.00054
12	QUARRY & SAND PIT INDUSTRIES	0.0147	0.0075	0.0292	0.1406	0.2613	0.00002	0.00001	0.00004
13	SERVICE RELATED TO MINERAL EXTRACT.	0.0150	0.0084	0.0409	0.1540	0.2750	0.00006	0.00002	0.00014
14	MEAT & MEAT PRODUCTS (EXC. POULTRY)	0.0129	0.0051	0.0220	0.0902	0.1599	0.00017	0.00007	0.00030
15	POULTRY PRODUCTS INDUSTRY	0.0159	0.0039	0.0311	0.1275	0.2143	0.00003	0.00001	0.00006
16	FISH PRODUCTS INDUSTRY	0.0198	0.0125	0.0271	0.1540	0.2744	0.00005	0.00003	0.00006
17	FRUIT AND VEGETABLE INDUSTRIES	0.0278	0.0187	0.0429	0.2106	0.3837	0.00010	0.00006	0.00016
18	DAIRY PRODUCTS INDUSTRIES	0.0104	0.0074	0.0147	0.0776	0.1401	0.00009	0.00006	0.00013
19	FEED INDUSTRY	0.0404	0.0141	0.1240	0.3049	0.5569	0.00017	0.00006	0.00055
20	VEGETABLE OIL MILLS (EXC. CORN OIL)	0.0467	0.0075	0.1393	0.3911	0.6502	0.00005	0.00001	0.00013
21	BISCUIT INDUSTRY	0.0342	0.0226	0.0544	0.2928	0.5342	0.00003	0.00002	0.00005
22	BREAD & OTHER BAKERY PRODUCTS IND.	0.0281	0.0139	0.0669	0.2153	0.3990	0.00006	0.00003	0.00013
23	CANE & BEET SUGAR INDUSTRY	0.0293	0.0042	0.0936	0.2547	0.4026	0.00003	0.00001	0.00009
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0205	0.0139	0.0292	0.1436	0.2662	0.00018	0.00012	0.00025
25	SOFT DRINK INDUSTRY	0.0191	0.0074	0.0357	0.1532	0.3048	0.00004	0.00002	0.00007
26	DISTILLERY PRODUCTS INDUSTRY	0.0085	0.0038	0.0179	0.0712	0.1309	0.00002	0.00001	0.00005
27	BREWERY PRODUCTS INDUSTRY	0.0078	0.0023	0.0201	0.0647	0.1177	0.00002	0.00001	0.00006
28	WINE INDUSTRY	0.0552	0.0176	0.1150	0.5050	0.8910	0.00002	0.00001	0.00003
29	TOBACCO PRODUCTS INDUSTRIES	0.0093	0.0060	0.0144	0.0779	0.1395	0.00003	0.00002	0.00005
30	RUBBER PRODUCTS INDUSTRIES	0.0341	0.0167	0.0585	0.2576	0.4665	0.00015	0.00008	0.00026
31	PLASTIC PRODUCTS INDUSTRIES	0.0310	0.0158	0.0620	0.2325	0.4031	0.00014	0.00007	0.00026
32	LEATHER TANNERIES	0.0510	0.0118	0.1250	0.4744	0.7861	0.00002	0.00000	0.00004
33	FOOTWEAR INDUSTRY	0.0243	0.0116	0.0523	0.1928	0.3347	0.00004	0.00002	0.00009
34	MISC. LEATHER & ALLIED PROD. IND.	0.0780	0.0334	0.1687	0.7018	1.2862	0.00004	0.00002	0.00010
35	MAN-MADE FIBRE YARN & WOVEN CLOTH	0.0277	0.0140	0.0579	0.2127	0.4037	0.00013	0.00006	0.00030
36	WOOL YARN & WOVEN CLOTH INDUSTRY	0.0662	0.0317	0.1833	0.5726	1.0255	0.00004	0.00002	0.00011
37	BROAD KNITTED FABRIC INDUSTRY	0.0280	0.0106	0.0494	0.2328	0.4316	0.00003	0.00001	0.00006
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0523	0.0337	0.0877	0.4115	0.7250	0.00013	0.00008	0.00021
39	CONTRACT TEXTILE DYEING & FINISHING	0.1594	0.0551	0.3912	1.4620	2.5246	0.00005	0.00001	0.00015
40	CARPET, MAT & RUG INDUSTRY	0.0275	0.0113	0.0941	0.2422	0.4295	0.00005	0.00002	0.00017
41	CLOTHING INDUSTRIES EXC. HOSIERY	0.0140	0.0085	0.0300	0.0965	0.1854	0.00015	0.00009	0.00034
42	HOSIERY INDUSTRY	0.0430	0.0152	0.1013	0.3751	0.6771	0.00002	0.00001	0.00006
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0084	0.0036	0.0153	0.0606	0.1120	0.00008	0.00004	0.00013
44	VENEER AND PLYWOOD INDUSTRIES	0.0146	0.0070	0.0283	0.1225	0.2070	0.00003	0.00001	0.00005
45	SASH, DOOR & OTHER MILLWORK IND.	0.0401	0.0170	0.0738	0.3074	0.5867	0.00013	0.00005	0.00023
46	WOODEN BOX & COFFIN INDUSTRIES	0.0288	0.0094	0.0559	0.2563	0.4574	0.00001	0.00000	0.00003
47	OTHER WOOD INDUSTRIES	0.0595	0.0346	0.1492	0.5113	0.9331	0.00005	0.00003	0.00011
48	HOUSEHOLD FURNITURE INDUSTRIES	0.0487	0.0196	0.1093	0.4000	0.7848	0.00012	0.00005	0.00027
49	OFFICE FURNITURE INDUSTRIES	0.0579	0.0203	0.1054	0.5050	0.9662	0.00004	0.00001	0.00009

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR TWO YEAR TIME INTERVALS (CONTINUED)

A2-14

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
50	OTHER FURNITURE & FIXTURE IND.	0.0431	0.0292	0.0553	0.3478	0.6897	0.00006	0.00004	0.00010
51	PULP & PAPER INDUSTRIES	0.0132	0.0073	0.0226	0.0903	0.1777	0.00023	0.00015	0.00035
52	ASPHALT ROOFING INDUSTRY	0.0179	0.0079	0.0244	0.1780	0.2885	0.00001	0.00000	0.00001
53	PAPER BOX & BAG INDUSTRIES	0.0126	0.0060	0.0246	0.1008	0.1830	0.00005	0.00002	0.00008
54	OTHER CONVERTED PAPER PRODUCTS IND.	0.0378	0.0211	0.0608	0.2994	0.5530	0.00010	0.00006	0.00016
55	PRINTING & PUBLISHING IND.	0.0109	0.0053	0.0195	0.0775	0.1471	0.00012	0.00006	0.00021
56	PLATEMAKING, TYPESETTING & BINDERY	0.0231	0.0095	0.0349	0.1932	0.3536	0.00002	0.00001	0.00004
57	PRIMARY STEEL INDUSTRIES	0.0206	0.0080	0.0295	0.1539	0.2876	0.00023	0.00009	0.00034
58	STEEL PIPE & TUBE INDUSTRY	0.1382	0.0615	0.3065	1.2032	2.1153	0.00024	0.00010	0.00060
59	IRON FOUNDRIES	0.0397	0.0226	0.0665	0.3209	0.5863	0.00005	0.00003	0.00010
60	NON-FERROUS SMELTING & REFINING IND	0.0256	0.0098	0.0490	0.1898	0.3450	0.00028	0.00013	0.00051
61	ALUMINUM ROLLING CASTING, EXTRUDING	0.0285	0.0153	0.0446	0.2477	0.4113	0.00005	0.00003	0.00009
62	COPPER ROLLING CASTING & EXTRUDING	0.0322	0.0110	0.0549	0.2572	0.4454	0.00005	0.00002	0.00008
63	OTHER METAL ROLLING, CASTING ETC.	0.0541	0.0168	0.0921	0.4618	0.8253	0.00005	0.00001	0.00010
64	POWER BOILER & STRUCT. METAL IND.	0.0355	0.0230	0.0606	0.2651	0.5033	0.00015	0.00009	0.00028
65	ORNAMENTAL & ARCH. METAL PROD. IND.	0.0293	0.0139	0.0720	0.2300	0.4309	0.00007	0.00003	0.00017
66	STAMPED, PRESSED & COATED METALS	0.0706	0.0424	0.1208	0.5300	0.9381	0.00043	0.00026	0.00071
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0254	0.0186	0.0397	0.1973	0.3596	0.00008	0.00006	0.00015
68	HARDWARE, TOOL & CUTLERY INDUSTRIES	0.0499	0.0259	0.0840	0.4128	0.7632	0.00010	0.00004	0.00019
69	HEATING EQUIPMENT INDUSTRY	0.0858	0.0641	0.1171	0.7454	1.4000	0.00006	0.00005	0.00009
70	MACHINE SHOPS INDUSTRY	0.0408	0.0200	0.0734	0.3342	0.6044	0.00005	0.00002	0.00009
71	OTHER METAL FABRICATING INDUSTRIES	0.0393	0.0169	0.0588	0.3010	0.5657	0.00013	0.00006	0.00019
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0552	0.0191	0.1552	0.4319	0.8374	0.00015	0.00005	0.00038
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0806	0.0498	0.1270	0.7477	1.3275	0.00006	0.00004	0.00010
74	OTHER MACHINERY & EQUIPMENT IND.	0.0404	0.0215	0.0685	0.3016	0.5954	0.00039	0.00020	0.00067
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0351	0.0084	0.0723	0.2918	0.5340	0.00012	0.00003	0.00023
76	MOTOR VEHICLE INDUSTRY	0.0133	0.0070	0.0211	0.0946	0.1819	0.00036	0.00021	0.00049
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.0700	0.0345	0.1199	0.5836	1.1057	0.00019	0.00007	0.00036
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0329	0.0220	0.0539	0.2292	0.4384	0.00042	0.00028	0.00051
79	RAILROAD ROLLING STOCK INDUSTRY	0.0817	0.0368	0.1446	0.6783	1.2557	0.00014	0.00006	0.00028
80	SHIPBUILDING AND REPAIR INDUSTRY	0.0900	0.0357	0.1395	0.7341	1.3801	0.00016	0.00007	0.00024
81	MISC. TRANSPORTATION EQUIPMENT IND.	0.0767	0.0458	0.1056	0.6287	1.2105	0.00007	0.00005	0.00009
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.0864	0.0525	0.1380	0.7115	1.3711	0.00010	0.00006	0.00014
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0525	0.0251	0.1006	0.4250	0.8204	0.00012	0.00006	0.00024
84	RECORD PLAYERS, RADIO & TV RECEIVER	0.0548	0.0130	0.0856	0.4562	0.8470	0.00006	0.00002	0.00010
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0698	0.0195	0.1561	0.5548	1.0116	0.00044	0.00009	0.00104
86	OFFICE, STORE & BUSINESS MACHINES	0.0393	0.0218	0.0696	0.3125	0.5442	0.00013	0.00005	0.00025
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0361	0.0120	0.0873	0.3277	0.5292	0.00009	0.00003	0.00019
88	BATTERY INDUSTRY	0.0498	0.0224	0.0935	0.4492	0.7891	0.00002	0.00001	0.00005
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0380	0.0191	0.0534	0.2831	0.5371	0.00023	0.00011	0.00033
90	CLAY PRODUCTS INDUSTRY	0.0452	0.0166	0.0744	0.4078	0.7336	0.00002	0.00001	0.00004
91	CEMENT INDUSTRY	0.0343	0.0058	0.1115	0.3173	0.5587	0.00004	0.00001	0.00014
92	CONCRETE PRODUCTS INDUSTRY	0.0262	0.0213	0.0352	0.2104	0.3967	0.00004	0.00002	0.00005
93	READY-MIX CONCRETE INDUSTRY	0.0119	0.0067	0.0251	0.0967	0.1800	0.00002	0.00001	0.00005
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0208	0.0129	0.0428	0.1805	0.3045	0.00004	0.00002	0.00009
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0478	0.0322	0.0786	0.3754	0.6823	0.00012	0.00008	0.00021
96	REFINED PETROLEUM & COAL PRODUCTS	0.0102	0.0047	0.0180	0.0725	0.1258	0.00016	0.00007	0.00027
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0547	0.0381	0.0729	0.4170	0.7730	0.00039	0.00026	0.00053
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0665	0.0299	0.0902	0.5562	1.0764	0.00013	0.00005	0.00021

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR TWO YEAR TIME INTERVALS (CONTINUED)

A2-15

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD ENTROPY*	STANDARD ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0384	0.0236	0.0720	0.3102	0.5478	0.00012	0.00007	0.00022
100	PAINT AND VARNISH INDUSTRY	0.0299	0.0187	0.0463	0.2487	0.4528	0.00005	0.00003	0.00008
101	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0527	0.0251	0.0887	0.4286	0.7758	0.00010	0.00005	0.00016
102	TOILET PREPARATIONS INDUSTRY	0.0514	0.0232	0.0843	0.4282	0.7767	0.00006	0.00003	0.00010
103	CHEMICAL & CHEMICAL PRODUCTS NEC	0.0734	0.0430	0.1219	0.5580	1.0286	0.00027	0.00015	0.00047
104	JEWELLERY & PRECIOUS METAL IND.	0.0679	0.0187	0.1375	0.5798	1.0363	0.00004	0.00001	0.00011
105	SPORTING GOODS & TOY INDUSTRIES	0.0615	0.0392	0.1078	0.4950	0.9131	0.00010	0.00006	0.00018
106	SIGN AND DISPLAY INDUSTRY	0.0352	0.0123	0.1049	0.3035	0.5363	0.00002	0.00001	0.00006
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.0691	0.0436	0.1037	0.6155	1.0992	0.00004	0.00003	0.00008
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0671	0.0470	0.1066	0.4996	0.8835	0.00030	0.00022	0.00046
109	REPAIR CONSTRUCTION	0.0134	0.0078	0.0263	0.1144	0.1990	0.00018	0.00011	0.00035
110	RESIDENTIAL CONSTRUCTION	0.0167	0.0095	0.0251	0.1306	0.2295	0.00056	0.00028	0.00093
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0159	0.0062	0.0308	0.1196	0.2192	0.00035	0.00012	0.00075
112	ROAD, HIGHWAY & AIRSTRIP CONST.	0.0148	0.0043	0.0340	0.1135	0.2091	0.00009	0.00002	0.00021
113	GAS & OIL FACILITY CONSTRUCTION	0.0415	0.0188	0.0895	0.3587	0.5950	0.00029	0.00016	0.00057
114	DAMS & IRRIGATION PROJECTS	0.0176	0.0072	0.0351	0.1377	0.2591	0.00016	0.00006	0.00032
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0150	0.0096	0.0215	0.1299	0.2183	0.00004	0.00002	0.00007
116	OTHER ENGINEERING CONSTRUCTION	0.0186	0.0046	0.0282	0.1467	0.2610	0.00018	0.00004	0.00031
117	CONSTRUCTION, OTHER ACTIVITIES	0.0069	0.0022	0.0098	0.0686	0.1132	0.00001	0.00000	0.00001
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0082	0.0022	0.0178	0.0765	0.1467	0.00006	0.00002	0.00013
119	RAILWAY TRANSPORT & REL. SERVICES	0.0178	0.0054	0.0625	0.1466	0.2308	0.00022	0.00007	0.00076
120	WATER TRANSPORT & REL. SERVICES	0.0145	0.0067	0.0220	0.1219	0.2511	0.00007	0.00003	0.00011
121	TRUCK TRANSPORT INDUSTRIES	0.0186	0.0066	0.0433	0.2102	0.3348	0.00026	0.00009	0.00062
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0207	0.0068	0.0433	0.1935	0.3340	0.00004	0.00001	0.00009
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0172	0.0087	0.0242	0.2077	0.3351	0.00001	0.00001	0.00002
124	TAXICAB INDUSTRY	0.0054	0.0014	0.0123	0.0564	0.0946	0.00001	0.00000	0.00002
125	OTHER TRANSPORT & SERV. TO TRANSP.	0.0211	0.0073	0.0575	0.2584	0.4074	0.00008	0.00002	0.00020
126	HIGHWAY & BRIDGE MAINTENANCE IND.	0.0465	0.0129	0.1156	0.6008	0.9421	0.00001	0.00000	0.00003
127	PIPELINE TRANSPORT INDUSTRIES	0.0237	0.0015	0.0730	0.2265	0.4174	0.00010	0.00001	0.00034
128	STORAGE AND WAREHOUSING INDUSTRIES	0.0053	0.0027	0.0073	0.0533	0.0993	0.00001	0.00000	0.00001
129	TELECOMMUNICATION BROADCASTING IND.	0.0089	0.0046	0.0156	0.0936	0.1590	0.00004	0.00002	0.00007
130	TELECOMMUNICATION CARRIERS & OTHER	0.0033	0.0014	0.0084	0.0339	0.0545	0.00006	0.00003	0.00011
131	POSTAL SERVICE INDUSTRY	0.0145	0.0092	0.0315	0.1283	0.2337	0.00004	0.00002	0.00009
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0083	0.0046	0.0115	0.0729	0.1316	0.00013	0.00008	0.00018
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0078	0.0022	0.0153	0.0789	0.1375	0.00002	0.00001	0.00004
134	OTHER UTILITY INDUSTRIES NEC	0.0352	0.0022	0.1077	0.3927	0.7132	0.00002	0.00000	0.00007
135	WHOLESALE TRADE INDUSTRIES	0.0038	0.0018	0.0051	0.0243	0.0379	0.00016	0.00007	0.00021
136	RETAIL TRADE INDUSTRIES	0.0050	0.0019	0.0081	0.0322	0.0600	0.00029	0.00011	0.00049
137	BANKS, CREDIT UNION & OTH. DEP INST	0.0090	0.0028	0.0298	0.0827	0.1487	0.00012	0.00003	0.00041
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0051	0.0024	0.0106	0.0476	0.0924	0.00026	0.00013	0.00059
139	INSURANCE INDUSTRIES	0.0097	0.0027	0.0206	0.0725	0.1568	0.00010	0.00003	0.00023
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0008	0.0001	0.0046	0.0078	0.0172	0.00004	0.00001	0.00021
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0108	0.0019	0.0260	0.0925	0.1654	0.00013	0.00002	0.00045
143	PROFESSIONAL BUSINESS SERVICES	0.0057	0.0014	0.0138	0.0524	0.0902	0.00007	0.00002	0.00016
144	ADVERTISING SERVICES	0.0042	0.0016	0.0077	0.0423	0.0793	0.00001	0.00000	0.00001
145	EDUCATIONAL SERVICE INDUSTRIES	0.0063	0.0019	0.0156	0.0497	0.1029	0.00001	0.00000	0.00003
146	HOSPITALS	0.0109	0.0060	0.0166	0.1079	0.1898	0.00000	0.00000	0.00001
147	OTHER HEALTH SERVICES	0.0037	0.0019	0.0061	0.0340	0.0571	0.00005	0.00003	0.00008

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1971-1981 FOR TWO YEAR TIME INTERVALS (CONTINUED)

A2-16

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0056	0.0018	0.0150	0.0468	0.0824	0.00014	0.00005	0.00038
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0062	0.0027	0.0109	0.0596	0.1065	0.00001	0.00000	0.00002
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0110	0.0053	0.0192	0.1063	0.1709	0.00005	0.00003	0.00007
151	LAUNDRIES & CLEANERS	0.0091	0.0014	0.0187	0.1012	0.1618	0.00002	0.00000	0.00004
152	OTHER PERSONAL SERVICES	0.0041	0.0020	0.0111	0.0397	0.0641	0.00001	0.00001	0.00004
153	PHOTOGRAPHERS	0.0121	0.0026	0.0303	0.1136	0.2074	0.00001	0.00000	0.00002
154	MISC. SERVICE INDUSTRIES	0.0072	0.0016	0.0151	0.0642	0.1104	0.00007	0.00001	0.00015
155	OPERATING SUPPLIES	0.0291	0.0137	0.0656	0.2372	0.4549	0.00057	0.00026	0.00128
156	OFFICE SUPPLIES	0.0040	0.0011	0.0118	0.0686	0.1041	0.00002	0.00001	0.00007
157	CAFETERIA SUPPLIES	0.0020	0.0010	0.0033	0.0226	0.0398	0.00000	0.00000	0.00001
158	LABORATORY SUPPLIES	0.0252	0.0074	0.0651	0.2786	0.4706	0.00005	0.00001	0.00013
159	TRAVEL & ENTERTAINMENT	0.0068	0.0030	0.0126	0.0740	0.1316	0.00008	0.00004	0.00015
160	ADVERTISING & PROMOTION	0.0040	0.0019	0.0097	0.0589	0.1040	0.00004	0.00002	0.00009
161	TRANSPORTATION MARGINS	0.0050	0.0011	0.0135	0.1280	0.2025	0.00011	0.00002	0.00031

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1981-1984 FOR ONE YEAR TIME INTERVALS

A2-17

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0039	0.0036	0.0044	0.0348	0.0569	0.00017	0.00016	0.00018
2	FISHING & TRAPPING INDUSTRIES	0.0057	0.0020	0.0098	0.0514	0.0954	0.00001	0.00000	0.00002
3	LOGGING & FORESTRY INDUSTRIES	0.0071	0.0007	0.0149	0.0682	0.1125	0.00005	0.00001	0.00011
4	GOLD MINES	0.0127	0.0074	0.0231	0.1027	0.1725	0.00002	0.00001	0.00004
5	OTHER METAL MINES	0.0140	0.0092	0.0172	0.1132	0.2012	0.00010	0.00008	0.00012
6	IRON MINES	0.0264	0.0200	0.0385	0.2220	0.4176	0.00006	0.00004	0.00010
7	ASBESTOS MINES	0.0199	0.0095	0.0275	0.1582	0.3417	0.00001	0.00001	0.00002
8	NON-METAL MINES EX COAL & ASBESTOS	0.0068	0.0047	0.0102	0.0544	0.0973	0.00001	0.00001	0.00002
9	SALT MINES	0.0115	0.0075	0.0153	0.1150	0.1915	0.00000	0.00000	0.00000
10	COAL MINES	0.0183	0.0142	0.0241	0.1566	0.2909	0.00003	0.00003	0.00004
11	CRUDE PETROLEUM & NATURAL GAS	0.0044	0.0030	0.0066	0.0323	0.0562	0.00015	0.00010	0.00023
12	QUARRY & SAND PIT INDUSTRIES	0.0195	0.0147	0.0282	0.2313	0.3632	0.00002	0.00002	0.00003
13	SERVICE RELATED TO MINERAL EXTRACT.	0.0036	0.0027	0.0042	0.0299	0.0638	0.00002	0.00002	0.00002
14	MEAT & MEAT PRODUCTS (EXC. POULTRY)	0.0042	0.0018	0.0082	0.0267	0.0507	0.00006	0.00002	0.00011
15	POULTRY PRODUCTS INDUSTRY	0.0042	0.0034	0.0048	0.0301	0.0558	0.00001	0.00001	0.00001
16	FISH PRODUCTS INDUSTRY	0.0065	0.0022	0.0123	0.0452	0.0795	0.00002	0.00001	0.00004
17	FRUIT AND VEGETABLE INDUSTRIES	0.0096	0.0027	0.0175	0.0668	0.1305	0.00003	0.00001	0.00006
18	DAIRY PRODUCTS INDUSTRIES	0.0048	0.0044	0.0052	0.0317	0.0628	0.00004	0.00004	0.00005
19	FEED INDUSTRY	0.0079	0.0037	0.0133	0.0565	0.1005	0.00004	0.00002	0.00006
20	VEGETABLE OIL MILLS (EXC. CORN OIL)	0.0149	0.0070	0.0222	0.1092	0.2020	0.00002	0.00001	0.00003
21	BISCUIT INDUSTRY	0.0154	0.0136	0.0164	0.1327	0.2386	0.00001	0.00001	0.00001
22	BREAD & OTHER BAKERY PRODUCTS IND.	0.0049	0.0029	0.0065	0.0353	0.0637	0.00001	0.00001	0.00001
23	CANE & BEET SUGAR INDUSTRY	0.0389	0.0113	0.0752	0.3129	0.5221	0.00006	0.00002	0.00011
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0049	0.0036	0.0061	0.0323	0.0611	0.00005	0.00003	0.00006
25	SOFT DRINK INDUSTRY	0.0086	0.0069	0.0097	0.0643	0.1316	0.00002	0.00002	0.00002
26	DISTILLERY PRODUCTS INDUSTRY	0.0133	0.0076	0.0170	0.1029	0.2073	0.00002	0.00001	0.00002
27	BREWERY PRODUCTS INDUSTRY	0.0057	0.0041	0.0079	0.0414	0.0813	0.00001	0.00001	0.00002
28	WINE INDUSTRY	0.0471	0.0106	0.1189	0.3930	0.7797	0.00002	0.00000	0.00004
29	TOBACCO PRODUCTS INDUSTRIES	0.0031	0.0011	0.0055	0.0265	0.0491	0.00001	0.00000	0.00001
30	RUBBER PRODUCTS INDUSTRIES	0.0091	0.0082	0.0103	0.0639	0.1180	0.00003	0.00003	0.00004
31	PLASTIC PRODUCTS INDUSTRIES	0.0109	0.0066	0.0139	0.0767	0.1319	0.00005	0.00003	0.00006
32	LEATHER TANNERIES	0.0297	0.0138	0.0496	0.2431	0.4240	0.00001	0.00000	0.00002
33	FOOTWEAR INDUSTRY	0.0136	0.0114	0.0170	0.1008	0.1873	0.00002	0.00002	0.00002
34	MISC. LEATHER & ALLIED PROD. IND.	0.0398	0.0151	0.0546	0.3333	0.5837	0.00001	0.00001	0.00002
35	MAN-MADE FIBRE YARN & WOVEN CLOTH	0.0118	0.0045	0.0164	0.0848	0.1711	0.00004	0.00001	0.00005
36	WOOL YARN & WOVEN CLOTH INDUSTRY	0.0240	0.0164	0.0339	0.2108	0.3692	0.00001	0.00001	0.00002
37	BROAD KNITTED FABRIC INDUSTRY	0.0232	0.0105	0.0476	0.1827	0.3682	0.00001	0.00001	0.00003
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0167	0.0093	0.0241	0.1215	0.2293	0.00004	0.00002	0.00006
39	CONTRACT TEXTILE DYEING & FINISHING	0.0397	0.0222	0.0617	0.3750	0.6525	0.00001	0.00001	0.00001
40	CARPET, MAT & RUG INDUSTRY	0.0200	0.0068	0.0374	0.1731	0.3069	0.00002	0.00001	0.00004
41	CLOTHING INDUSTRIES EXC. HOSIERY	0.0085	0.0046	0.0146	0.0565	0.1084	0.00006	0.00003	0.00011
42	HOSIERY INDUSTRY	0.0153	0.0049	0.0258	0.1372	0.2517	0.00001	0.00000	0.00001
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0041	0.0028	0.0059	0.0269	0.0539	0.00004	0.00003	0.00005
44	VENEER AND PLYWOOD INDUSTRIES	0.0089	0.0031	0.0138	0.0721	0.1277	0.00001	0.00000	0.00002
45	SASH, DOOR & OTHER MILLWORK IND.	0.0111	0.0093	0.0132	0.0806	0.1499	0.00003	0.00002	0.00004
46	WOODEN BOX & COFFIN INDUSTRIES	0.0176	0.0116	0.0254	0.1434	0.2821	0.00001	0.00000	0.00001
47	OTHER WOOD INDUSTRIES	0.0269	0.0160	0.0337	0.2175	0.4048	0.00003	0.00001	0.00005
48	HOUSEHLD FURNITURE INDUSTRIES	0.0317	0.0088	0.0678	0.2286	0.4545	0.00006	0.00002	0.00013
49	OFFICE FURNITURE INDUSTRIES	0.0510	0.0176	0.0782	0.3884	0.7452	0.00005	0.00002	0.00007

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECDMPDSITON DF CONNSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1981-1984 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-1B

CDDE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTRDPY	RAW ENTROPY	STANDARD. ENTRDPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
50	OTHER FURNITURE & FIXTURE IND.	0.0287	0.0230	0.0394	0.2166	0.4106	0.00004	0.00003	0.00005
51	PULP & PAPER INDUSTRIES	0.0073	0.0045	0.0102	0.0479	0.0934	0.00015	0.00009	0.00020
52	ASPHALT ROOFING INDUSTRY	0.0171	0.0106	0.0300	0.1681	0.2617	0.00001	0.00001	0.00002
53	PAPER BOX & BAG INDUSTRIES	0.0090	0.0032	0.0187	0.0623	0.1201	0.00003	0.00001	0.00006
54	OTHER CONVERTED PAPER PRODUCTS IND.	0.0171	0.0137	0.0213	0.1203	0.2332	0.00004	0.00004	0.00005
55	PRINTING & PUBLISHING IND.	0.0139	0.0068	0.0271	0.0971	0.1761	0.00015	0.00007	0.00029
56	PLATEMAKING, TYPESETTING & BINDERY	0.0272	0.0199	0.0382	0.2098	0.3841	0.00003	0.00002	0.00004
57	PRIMARY STEEL INDUSTRIES	0.0218	0.0127	0.0284	0.1399	0.2896	0.00022	0.00013	0.00031
58	STEEL PIPE & TUBE INDUSTRY	0.1402	0.0642	0.2096	1.0563	1.9787	0.00021	0.00011	0.00036
59	IRON FOUNDRIES	0.0267	0.0248	0.0278	0.2029	0.3844	0.00003	0.00002	0.00003
60	METAL-FERRDUS SMELTING & REFINING IND	0.0278	0.0113	0.0464	0.1828	0.3738	0.00032	0.00014	0.00051
61	ALUMINUM ROLLING CASTING, EXTRUDING	0.0138	0.0094	0.0210	0.1154	0.1935	0.00003	0.00002	0.00004
62	COPPER ROLLING CASTING & EXTRUDING	0.0365	0.0205	0.0495	0.2809	0.5145	0.00003	0.00002	0.00004
63	OTHER METAL ROLLING, CASTING ETC.	0.0645	0.0457	0.0798	0.5350	0.8970	0.00007	0.00005	0.00008
64	POWER BOILER & STRUCT. METAL IND.	0.0232	0.0108	0.0396	0.1586	0.2962	0.00008	0.00003	0.00013
65	ORNAMENTAL & ARCH. METAL PROD. IND.	0.0212	0.0139	0.0274	0.1528	0.2885	0.00004	0.00002	0.00004
66	STAMPED, PRESED & COATED METALS	0.0390	0.0253	0.0660	0.2582	0.4773	0.00023	0.00014	0.00041
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0179	0.0094	0.0277	0.1324	0.2359	0.00004	0.00002	0.00006
68	HARDWARE, TOOL & CUTLERY INDUSTRIES	0.0232	0.0153	0.0298	0.1735	0.3233	0.00004	0.00002	0.00005
69	HEATING EQUIPMENT INDUSTRY	0.0575	0.0453	0.0639	0.4890	0.8882	0.00003	0.00002	0.00004
70	MACHINE SHOPS INDUSTRY	0.0655	0.0126	0.1526	0.4877	0.8912	0.00007	0.00001	0.00017
71	OTHER METAL FABRICATING INDUSTRIES	0.0369	0.0228	0.0482	0.2615	0.4829	0.00008	0.00005	0.00011
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0342	0.0238	0.0515	0.2613	0.5005	0.00005	0.00003	0.00008
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0363	0.0188	0.0528	0.3405	0.5741	0.00002	0.00001	0.00003
74	OTHER MACHINERY & EQUIPMENT IND.	0.0245	0.0143	0.0328	0.1615	0.3240	0.00019	0.00012	0.00028
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0223	0.0135	0.0335	0.1569	0.3388	0.00008	0.00004	0.00014
76	MOTOR VEHICLE INDUSTRY	0.0106	0.0049	0.0156	0.0784	0.1477	0.00026	0.00015	0.00041
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.0602	0.0336	0.1057	0.4993	0.9571	0.00008	0.00004	0.00013
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0183	0.0137	0.0262	0.1207	0.2332	0.00023	0.00019	0.00026
79	RAILROAD ROLLING STOCK INDUSTRY	0.0583	0.0546	0.0654	0.4785	0.8918	0.00008	0.00007	0.00008
80	SHIPBUILDING AND REPAIR INDUSTRY	0.1030	0.0442	0.1607	0.8031	1.5540	0.00015	0.00008	0.00024
81	MISC. TRANSPORTATION EQUIPMENT IND.	0.1316	0.0485	0.1988	1.0569	2.0981	0.00008	0.00003	0.00012
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.0668	0.0238	0.1068	0.5404	1.0253	0.00005	0.00002	0.00008
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0230	0.0209	0.0243	0.1813	0.3590	0.00003	0.00003	0.00003
84	RECORD PLAYERS, RADIO & TV RECEIVER	0.0216	0.0158	0.0284	0.1665	0.3279	0.00002	0.00001	0.00002
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0317	0.0262	0.0418	0.2123	0.4128	0.00018	0.00014	0.00026
86	OFFICE, STORE & BUSINESS MACHINES	0.0423	0.0145	0.0751	0.3163	0.5888	0.00015	0.00004	0.00022
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0189	0.0169	0.0203	0.1429	0.2547	0.00003	0.00003	0.00004
88	BATTERY INDUSTRY	0.0244	0.0093	0.0524	0.1941	0.3462	0.00001	0.00000	0.00002
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0157	0.0145	0.0167	0.1090	0.1995	0.00007	0.00006	0.00008
90	CLAY PRODUCTS INDUSTRY	0.0375	0.0121	0.0754	0.3139	0.5567	0.00001	0.00000	0.00002
91	CEMENT INDUSTRY	0.0116	0.0074	0.0184	0.1010	0.1818	0.00001	0.00001	0.00002
92	CONCRETE PRODUCTS INDUSTRY	0.0106	0.0066	0.0131	0.0807	0.1432	0.00001	0.00001	0.00001
93	READY-MIX CONCRETE INDUSTRY	0.0087	0.0034	0.0191	0.0633	0.1210	0.00001	0.00001	0.00003
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0123	0.0092	0.0176	0.0970	0.1700	0.00002	0.00002	0.00003
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0180	0.0133	0.0250	0.1289	0.2373	0.00004	0.00003	0.00005
96	REFINED PETROLEUM & COAL PRODUCTS	0.0035	0.0013	0.0070	0.0208	0.0353	0.00013	0.00004	0.00027
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0237	0.0163	0.0327	0.1568	0.3029	0.00025	0.00017	0.00032
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0243	0.0106	0.0409	0.1709	0.3453	0.00006	0.00003	0.00010

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1981-1984 FOR ONE YEAR TIME INTERVALS (CONTINUED)

A2-19

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0124	0.0069	0.0217	0.0903	0.1614	0.00003	0.00002	0.00006
100	PAINT AND VARNISH INDUSTRY	0.0180	0.0061	0.0308	0.1314	0.2490	0.00003	0.00001	0.00004
101	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0215	0.0112	0.0357	0.1547	0.2995	0.00004	0.00002	0.00007
102	TOILET PREPARATIONS INDUSTRY	0.0233	0.0168	0.0359	0.1744	0.3221	0.00003	0.00002	0.00004
103	CHEMICAL & CHEMICAL PRODUCTS NEC	0.1325	0.0111	0.3283	0.9042	1.6884	0.00074	0.00007	0.00192
104	JEWELLERY & PRECIOUS METAL INO.	0.0192	0.0100	0.0340	0.1468	0.2485	0.00002	0.00001	0.00004
105	SPORTING GOODS & TOY INDUSTRIES	0.0537	0.0379	0.0840	0.3989	0.7343	0.00007	0.00005	0.00011
106	SIGN AND DISPLAY INDUSTRY	0.0210	0.0124	0.0286	0.1711	0.2914	0.00001	0.00001	0.00002
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.0773	0.0223	0.1631	0.6296	1.2190	0.00002	0.00001	0.00004
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0198	0.0148	0.0246	0.1369	0.2492	0.00008	0.00006	0.00010
109	REPAIR CONSTRUCTION	0.0048	0.0035	0.0059	0.0425	0.0723	0.00007	0.00005	0.00008
110	RESIDENTIAL CONSTRUCTION	0.0184	0.0018	0.0275	0.1407	0.2492	0.00051	0.00005	0.00077
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0052	0.0034	0.0088	0.0389	0.0719	0.00010	0.00006	0.00017
112	ROAD, HIGHWAY & AIRSTRIP CONST.	0.0070	0.0047	0.0115	0.0554	0.0991	0.00004	0.00002	0.00007
113	GAS & OIL FACILITY CONSTRUCTION	0.0112	0.0069	0.0196	0.0935	0.1562	0.00014	0.00008	0.00023
114	DAMS & IRRIGATION PROJECTS	0.0310	0.0182	0.0406	0.2261	0.4160	0.00024	0.00010	0.00034
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0061	0.0054	0.0068	0.0541	0.0901	0.00002	0.00001	0.00002
116	OTHER ENGINEERING CONSTRUCTION	0.0051	0.0014	0.0083	0.0400	0.0703	0.00004	0.00001	0.00007
117	CONSTRUCTION, OTHER ACTIVITIES	0.0021	0.0004	0.0045	0.0215	0.0363	0.00000	0.00000	0.00000
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0064	0.0046	0.0086	0.0591	0.1150	0.00005	0.00004	0.00007
119	RAILWAY TRANSPORT & REL. SERVICES	0.0099	0.0021	0.0213	0.0839	0.1334	0.00009	0.00002	0.00020
120	WATER TRANSPORT & REL. SERVICES	0.0067	0.0038	0.0100	0.0532	0.1173	0.00003	0.00002	0.00005
121	TRUCK TRANSPORT INDUSTRIES	0.0041	0.0029	0.0050	0.0468	0.0740	0.00006	0.00004	0.00007
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0070	0.0021	0.0128	0.0648	0.1152	0.00002	0.00000	0.00003
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0073	0.0050	0.0102	0.1035	0.1530	0.00000	0.00000	0.00000
124	TAXICAB INDUSTRY	0.0027	0.0018	0.0034	0.0302	0.0481	0.00000	0.00000	0.00000
125	OTHER TRANSPORT & SERV. TO TRANSP.	0.0225	0.0073	0.0494	0.1974	0.4421	0.00009	0.00003	0.00020
126	HIGHWAY & BRIDGE MAINTENANCE INO.	0.0262	0.0135	0.0392	0.3332	0.5310	0.00001	0.00000	0.00001
127	Pipeline TRANSPORT INDUSTRIES	0.0065	0.0018	0.0137	0.0635	0.1156	0.00002	0.00001	0.00005
128	STORAGE AND WAREHOUSING INDUSTRIES	0.0055	0.0009	0.0097	0.0542	0.1050	0.00001	0.00000	0.00001
129	TELECOMMUNICATION BROADCASTING INO.	0.0040	0.0033	0.0045	0.0442	0.0728	0.00002	0.00001	0.00002
130	TELECOMMUNICATION CARRIERS & OTHER	0.0013	0.0002	0.0022	0.0156	0.0224	0.00002	0.00000	0.00003
131	POSTAL SERVICE INDUSTRY	0.0112	0.0046	0.0173	0.0986	0.1743	0.00003	0.00001	0.00005
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0040	0.0024	0.0056	0.0380	0.0653	0.00008	0.00005	0.00010
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0031	0.0022	0.0048	0.0325	0.0562	0.00001	0.00000	0.00001
134	OTHER UTILITY INDUSTRIES NEC	0.0056	0.0044	0.0070	0.0653	0.1087	0.00000	0.00000	0.00000
135	WHOLESALE TRADE INDUSTRIES	0.0023	0.0017	0.0028	0.0138	0.0232	0.00009	0.00007	0.00011
136	RETAIL TRADE INDUSTRIES	0.0022	0.0011	0.0039	0.0139	0.0269	0.00011	0.00006	0.00019
137	BANKS, CREDIT UNION & OTH. DEP INST	0.0062	0.0041	0.0099	0.0601	0.1073	0.00007	0.00004	0.00011
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0107	0.0051	0.0166	0.1025	0.2011	0.00051	0.00024	0.00080
139	INSURANCE INDUSTRIES	0.0079	0.0028	0.0164	0.0580	0.1320	0.00006	0.00002	0.00013
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0002	0.0001	0.0003	0.0018	0.0035	0.00001	0.00000	0.00001
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0047	0.0029	0.0076	0.0384	0.0744	0.00005	0.00003	0.00008
143	PROFESSIONAL BUSINESS SERVICES	0.0015	0.0004	0.0034	0.0151	0.0240	0.00002	0.00001	0.00005
144	ADVERTISING SERVICES	0.0021	0.0016	0.0029	0.0196	0.0407	0.00000	0.00000	0.00000
145	EDUCATIONAL SERVICE INDUSTRIES	5.100e-05	4.000e-05	4.000e-05	4.000e-05	4.000e-05	5.000e-05	5.000e-05	5.000e-05
146	HOSPITALS	4.000e-05	4.000e-05	4.000e-05	4.000e-05	4.000e-05	5.000e-05	5.000e-05	5.000e-05
147	OTHER HEALTH SERVICES	0.0013	0.0004	0.0019	0.0127	0.0219	0.00002	0.00001	0.00002

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1981-1984 FOR ONE YEAR TIME INTERVALS (CONTINUED)

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTRDPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTRDPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTRDPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTRDPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0009	0.0007	0.0011	0.0074	0.0135	0.00002	0.00002	0.00003
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0086	0.0031	0.0166	0.0792	0.1490	0.00001	0.00000	0.00003
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0044	0.0033	0.0063	0.0436	0.0694	0.00002	0.00001	0.00003
151	LAUNDRIES & CLEANERS	0.0032	0.0010	0.0064	0.0332	0.0564	0.00001	0.00000	0.00001
152	OTHER PERSONAL SERVICES	0.0009	0.0004	0.0017	0.0080	0.0138	0.00000	0.00000	0.00001
153	PHOTOGRAPHERS	0.0045	0.0009	0.0067	0.0400	0.0782	0.00000	0.00000	0.00000
154	MISC. SERVICE INDUSTRIES	0.0023	0.0007	0.0045	0.0200	0.0359	0.00002	0.00001	0.00004
155	OPERATING SUPPLIES	0.0362	0.0111	0.0587	0.2805	0.5775	0.00069	0.00023	0.00113
156	OFFICE SUPPLIES	0.0041	0.0026	0.0057	0.0701	0.1076	0.00002	0.00001	0.00003
157	CAFETERIA SUPPLIES	0.0005	0.0003	0.0007	0.0062	0.0108	0.00000	0.00000	0.00000
158	LABORATORY SUPPLIES	0.0053	0.0034	0.0064	0.0656	0.1012	0.00001	0.00001	0.00001
159	TRAVEL & ENTERTAINMENT	0.0010	0.0006	0.0015	0.0084	0.0179	0.00001	0.00001	0.00002
160	ADVERTISING & PROMOTION	0.0014	0.0003	0.0022	0.0181	0.0332	0.00001	0.00000	0.00002
161	TRANSPORTATION MARGINS	0.0039	0.0037	0.0040	0.0500	0.1137	0.00007	0.00007	0.00008

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTRDPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1981-1984 FOR TWO YEAR TIME INTERVALS

A2-21

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTRDPY	MINIMUM WEIGHTED ENTRDPY	MAXIMUM WEIGHTED ENTRDPY
1	AGRICULTURAL & RELATED SERVICES IND	0.0095	0.0047	0.0143	0.0834	0.1365	0.00039	0.00020	0.00058
2	FISHING & TRAPPING INDUSTRIES	0.0095	0.0072	0.0119	0.0856	0.1590	0.00001	0.00001	0.00002
3	LOGGING & FORESTRY INDUSTRIES	0.0151	0.0082	0.0221	0.1462	0.2411	0.00013	0.00007	0.00019
4	GOLD MINES	0.0139	0.0068	0.0210	0.1155	0.1888	0.00003	0.00001	0.00004
5	OTHER METAL MINES	0.0362	0.0317	0.0407	0.2920	0.5207	0.00027	0.00027	0.00027
6	IRON MINES	0.0565	0.0281	0.0848	0.4817	0.8898	0.00012	0.00006	0.00018
7	ASBESTOS MINES	0.0342	0.0243	0.0440	0.2695	0.5827	0.00002	0.00001	0.00003
8	NON-METAL MINES EX COAL & ASBESTOS	0.0082	0.0051	0.0112	0.0652	0.1176	0.00002	0.00001	0.00003
9	SALT MINES	0.0212	0.0184	0.0240	0.2218	0.3561	0.00001	0.00001	0.00001
10	COAL MINES	0.0480	0.0434	0.0525	0.4172	0.7692	0.00009	0.00009	0.00010
11	CRUDE PETROLEUM & NATURAL GAS	0.0132	0.0099	0.0165	0.0966	0.1685	0.00046	0.00035	0.00058
12	QUARRY & SAND PIT INDUSTRIES	0.0285	0.0258	0.0312	0.3395	0.5325	0.00003	0.00003	0.00003
13	SERVICE RELATED TO MINERAL EXTRACT.	0.0060	0.0026	0.0094	0.0456	0.1052	0.00004	0.00002	0.00006
14	MEAT & MEAT PRODUCTS (EXC. PDULTRY)	0.0082	0.0047	0.0117	0.0517	0.0983	0.00011	0.00006	0.00016
15	POULTRY PRDDUCTS INDUSTRY	0.0110	0.0091	0.0129	0.0806	0.1482	0.00002	0.00002	0.00003
16	FISH PRODUCTS INDUSTRY	0.0106	0.0061	0.0151	0.0737	0.1297	0.00003	0.00002	0.00004
17	FRUIT AND VEGETABLE INDUSTRIES	0.0170	0.0129	0.0211	0.1177	0.2303	0.00006	0.00004	0.00007
18	DAIRY PRDDUCTS INDUSTRIES	0.0110	0.0097	0.0124	0.0733	0.1456	0.00009	0.00008	0.00011
19	FEED INDUSTRY	0.0133	0.0089	0.0177	0.0964	0.1704	0.00006	0.00004	0.00008
20	VEGETABLE OIL MILLS (EXC. CDRN DIL)	0.0360	0.0150	0.0570	0.2637	0.4909	0.00005	0.00002	0.00008
21	BITSCUIT INDUSTRY	0.0253	0.0186	0.0320	0.2176	0.3930	0.00002	0.00001	0.00002
22	BREAD & OTHER BAKERY PRDDUCTS IND.	0.0094	0.0082	0.0105	0.0686	0.1221	0.00002	0.00002	0.00002
23	CANE & BEET SUGAR INDUSTRY	0.0780	0.0361	0.1200	0.6391	1.0510	0.00011	0.00005	0.00018
24	MISC. FOOD PRODUCTS INDUSTRIES	0.0094	0.0083	0.0105	0.0619	0.1170	0.00009	0.00008	0.00010
25	SDFT DRINK INDUSTRY	0.0242	0.0144	0.0341	0.1906	0.3809	0.00006	0.00003	0.00008
26	DISTILLERY PRODUCTS INDUSTRY	0.0352	0.0262	0.0441	0.2588	0.5443	0.00004	0.00003	0.00005
27	BREWERY PRDDUCTS INDUSTRY	0.0104	0.0104	0.0104	0.0749	0.1475	0.00003	0.00002	0.00003
28	WINE INDUSTRY	0.0679	0.0183	0.1175	0.5642	1.1230	0.00002	0.00001	0.00004
29	TOBACCO PRDDUCTS INDUSTRIES	0.0045	0.0044	0.0047	0.0427	0.0724	0.00001	0.00001	0.00001
30	RUBBER PRODUCTS INDUSTRIES	0.0169	0.0153	0.0186	0.1193	0.2219	0.00007	0.00006	0.00008
31	PLASTIC PRODUCTS INDUSTRIES	0.0219	0.0190	0.0248	0.1511	0.2635	0.00011	0.00010	0.00012
32	LEATHER TANNERIES	0.0492	0.0334	0.0650	0.4018	0.6981	0.00002	0.00001	0.00002
33	FOOTWEAR INDUSTRY	0.0246	0.0209	0.0284	0.1819	0.3333	0.00003	0.00003	0.00004
34	MISC. LEATHER & ALLIED PRD. IND.	0.0571	0.0383	0.0758	0.4613	0.8280	0.00002	0.00001	0.00002
35	MAN-MADE FIBRE YARN & WDVN CLOTH	0.0169	0.0139	0.0199	0.1227	0.2463	0.00006	0.00005	0.00006
36	WOOL YARN & WDVN CLOTH INDUSTRY	0.0471	0.0382	0.0560	0.4082	0.7226	0.00002	0.00002	0.00003
37	BROAD KNITTED FABRIC INDUSTRY	0.0331	0.0146	0.0517	0.2592	0.5283	0.00002	0.00001	0.00003
38	MISC. TEXTILE PRODUCTS INDUSTRIES	0.0330	0.0275	0.0385	0.2390	0.4531	0.00008	0.00007	0.00010
39	CONTRACT TEXTILE DYEING & FINISHING	0.0752	0.0593	0.0812	0.6993	1.2307	0.00002	0.00002	0.00002
40	CARPET, MAT & RUG INDUSTRY	0.0387	0.0251	0.0523	0.3413	0.5958	0.00005	0.00003	0.00006
41	CLOTHING INDUSTRIES EXC. HDSIERY	0.0130	0.0057	0.0204	0.0860	0.1658	0.00010	0.00004	0.00016
42	HDSIERY INDUSTRY	0.0247	0.0139	0.0356	0.2222	0.4057	0.00001	0.00001	0.00001
43	SAWMILLS, PLANING & SHINGLE MILLS	0.0059	0.0045	0.0073	0.0384	0.0775	0.00006	0.00004	0.00007
44	VEENEER AND PLYWOOD INDUSTRIES	0.0148	0.0095	0.0201	0.1194	0.2130	0.00002	0.00001	0.00003
45	SASH, DOOR & OTHER MILLWORK IND.	0.0180	0.0172	0.0188	0.1300	0.2426	0.00005	0.00005	0.00005
46	WOODEN BOX & COFFIN INDUSTRIES	0.0298	0.0180	0.0415	0.2405	0.4691	0.00001	0.00001	0.00001
47	OTHER WOOD INDUSTRIES	0.0460	0.0453	0.0468	0.3638	0.6914	0.00006	0.00005	0.00006
48	HOUSEHLD FURNITURE INDUSTRIES	0.0509	0.0393	0.0625	0.3659	0.7241	0.00010	0.00008	0.00012
49	OFFICE FURNITURE INDUSTRIES	0.0883	0.0628	0.1139	0.6735	1.2792	0.00008	0.00006	0.00010

\* VALUES HAVE BEEN MULTIPLIED BY 100

DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1981-1984 FOR TWO YEAR TIME INTERVALS (CONTINUED)

CODE	INDUSTRY	AVERAGE	MINIMUM	MAXIMUM	BOUNDED	UNBOUNDED	AVERAGE	MINIMUM	MAXIMUM
		RAW ENTROPY	RAW ENTROPY	RAW ENTROPY	STANDARD. ENTROPY*	STANDARD. ENTROPY*	WEIGHTED ENTROPY	WEIGHTED ENTROPY	WEIGHTED ENTROPY
50	OTHER FURNITURE & FIXTURE INO.	0.0491	0.0360	0.0623	0.3734	0.7058	0.00007	0.00005	0.00008
51	PULP & PAPER INDUSTRIES	0.0135	0.0125	0.0145	0.0877	0.1721	0.00027	0.00025	0.00030
52	ASPHALT ROOFING INDUSTRY	0.0110	0.0065	0.0156	0.1138	0.1711	0.00001	0.00000	0.00001
53	PAPER BOX & BAG INDUSTRIES	0.0145	0.0080	0.0210	0.1007	0.1937	0.00004	0.00002	0.00006
54	OTHER CONVERTED PAPER PRODUCTS INO.	0.0274	0.0271	0.0277	0.1929	0.3744	0.00007	0.00007	0.00007
55	PRINTING & PUBLISHING IND.	0.0407	0.0230	0.0584	0.2843	0.5133	0.00043	0.00025	0.00061
56	PLATEMAKING, TYPESETTING & BINOERY	0.0467	0.0378	0.0556	0.3528	0.6588	0.00005	0.00004	0.00006
57	PRIMARY STEEL INDUSTRIES	0.0384	0.0256	0.0513	0.2469	0.4994	0.00040	0.00025	0.00055
58	STEEL PIPE & TUBE INDUSTRY	0.2675	0.1783	0.3566	2.0481	3.8292	0.00041	0.00021	0.00062
59	IRON FOUNDRIES	0.0401	0.0313	0.0489	0.3049	0.5861	0.00004	0.00003	0.00005
60	NON-FERROUS SMELTING & REFINING INO	0.0386	0.0204	0.0569	0.2554	0.5181	0.00048	0.00024	0.00072
61	ALUMINUM ROLLING CASTING, EXTRUOING	0.0138	0.0088	0.0189	0.1182	0.1944	0.00003	0.00002	0.00004
62	COPPER ROLLING CASTING & EXTRUOING	0.0497	0.0330	0.0665	0.3844	0.6917	0.00004	0.00003	0.00005
63	OTHER METAL ROLLING, CASTING ETC.	0.1143	0.1090	0.1196	0.9778	1.6163	0.00013	0.00013	0.00014
64	POWER BOILER & STRUCT. METAL INO.	0.0455	0.0434	0.0476	0.3104	0.5796	0.00014	0.00014	0.00014
65	ORNAMENTAL & ARCH. METAL PROD. INO.	0.0497	0.0481	0.0512	0.3576	0.6682	0.00008	0.00008	0.00008
66	STAMPEO, PRESSEO & COATED METALS	0.0344	0.0240	0.0448	0.2276	0.4197	0.00019	0.00014	0.00025
67	WIRE AND WIRE PRODUCTS INDUSTRIES	0.0388	0.0226	0.0549	0.2894	0.5085	0.00009	0.00005	0.00012
68	HAROWARE, TOOL & CUTLERY INDUSTRIES	0.0364	0.0326	0.0402	0.2639	0.5067	0.00006	0.00005	0.00006
69	HEATING EQUIPMENT INDUSTRY	0.0790	0.0686	0.0894	0.6767	1.2348	0.00004	0.00003	0.00005
70	MACHINE SHOPS INDUSTRY	0.0952	0.0421	0.1484	0.7085	1.2995	0.00010	0.00005	0.00016
71	OTHER METAL FABRICATING INDUSTRIES	0.0605	0.0498	0.0712	0.4278	0.7941	0.00013	0.00010	0.00015
72	AGRICULTURE IMPLEMENT INDUSTRY	0.0544	0.0509	0.0578	0.3990	0.8009	0.00008	0.00007	0.00009
73	COMMERCIAL REFRIGERATION EQUIPMENT	0.0616	0.0506	0.0726	0.5958	0.9819	0.00003	0.00003	0.00004
74	OTHER MACHINERY & EQUIPMENT INO.	0.0501	0.0496	0.0505	0.3308	0.6647	0.00038	0.00036	0.00040
75	AIRCRAFT & AIRCRAFT PARTS INDUSTRY	0.0339	0.0120	0.0557	0.2328	0.5042	0.00009	0.00004	0.00015
76	MOTOR VEHICLE INDUSTRY	0.0206	0.0126	0.0286	0.1562	0.2935	0.00056	0.00037	0.00074
77	TRUCK, BUS BODY & TRAILER INDUSTRY	0.1105	0.0860	0.1351	0.9310	1.7505	0.00014	0.00013	0.00015
78	MOTOR VEHICLE PARTS & ACCESSORIES	0.0418	0.0341	0.0494	0.2777	0.5329	0.00063	0.00059	0.00067
79	RAILROAD ROLLING STOCK INDUSTRY	0.0919	0.0833	0.1006	0.7391	1.3953	0.00011	0.00009	0.00014
80	SHIPBUILDING AND REPAIR INDUSTRY	0.2360	0.1468	0.3251	1.8231	3.5036	0.00033	0.00017	0.00049
81	MISC. TRANSPORTATION EQUIPMENT INO.	0.2304	0.2080	0.2527	1.8539	3.6994	0.00014	0.00012	0.00015
82	SMALL ELECTRICAL APPLIANCE INDUSTRY	0.1254	0.0754	0.1754	1.0065	1.9395	0.00010	0.00006	0.00013
83	MAJOR APPLIANCES (ELEC & NON-ELEC.)	0.0503	0.0459	0.0547	0.3845	0.7645	0.00007	0.00006	0.00008
84	RECORD PLAYERS, RADIO & TV RECEIVER	0.0594	0.0466	0.0722	0.4573	0.9103	0.00005	0.00004	0.00006
85	ELECTRONIC EQUIPMENT INDUSTRIES	0.0588	0.0579	0.0597	0.3937	0.7605	0.00034	0.00030	0.00037
86	OFFICE, STORE & BUSINESS MACHINES	0.0648	0.0420	0.0877	0.4907	0.9115	0.00025	0.00025	0.00026
87	COMMUNICATIONS, ENERGY WIRE & CABLE	0.0281	0.0267	0.0296	0.2121	0.3789	0.00005	0.00005	0.00005
88	BATTERY INDUSTRY	0.0471	0.0214	0.0728	0.3745	0.6672	0.00002	0.00001	0.00003
89	OTHER ELECT. & ELECTRONIC PRODUCTS	0.0268	0.0263	0.0274	0.1846	0.3410	0.00011	0.00011	0.00011
90	CLAY PRODUCTS INDUSTRY	0.1027	0.0931	0.1123	0.8535	1.5285	0.00003	0.00003	0.00003
91	CEMENT INDUSTRY	0.0162	0.0137	0.0187	0.1440	0.2545	0.00001	0.00001	0.00002
92	CONCRETE PRODUCTS INDUSTRY	0.0176	0.0167	0.0186	0.1326	0.2365	0.00002	0.00001	0.00002
93	READY-MIX CONCRETE INDUSTRY	0.0156	0.0070	0.0242	0.1123	0.2175	0.00002	0.00001	0.00004
94	GLASS & GLASS PRODUCTS INDUSTRIES	0.0248	0.0231	0.0264	0.1943	0.3418	0.00004	0.00004	0.00004
95	NON-METALLIC MINERAL PRODUCTS NEC	0.0318	0.0248	0.0388	0.2278	0.4295	0.00006	0.00005	0.00008
96	REFINED PETROLEUM & COAL PRODUCTS	0.0063	0.0042	0.0084	0.0372	0.0642	0.00022	0.00014	0.00030
97	INDUSTRIAL CHEMICALS INDUSTRIES NEC	0.0495	0.0489	0.0501	0.3276	0.6364	0.00050	0.00050	0.00051
98	PLASTIC & SYNTHETIC RESIN INDUSTRY	0.0327	0.0303	0.0352	0.2307	0.4651	0.00009	0.00008	0.00010

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
FOR THE TIME SERIES 1981-1984 FOR TWO YEAR TIME INTERVALS (CONTINUED)

A2-23

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTROPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTROPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTROPY	MAXIMUM WEIGHTED ENTROPY
99	PHARMACEUTICAL & MEDICINE INDUSTRY	0.0192	0.0157	0.0227	0.1398	0.2503	0.00005	0.00004	0.00006
100	PAINT AND VARNISH INDUSTRY	0.0285	0.0250	0.0321	0.2093	0.3964	0.00005	0.00004	0.00005
101	SOAP & CLEANING COMPOUNDS INDUSTRY	0.0377	0.0286	0.0469	0.2719	0.5270	0.00007	0.00005	0.00009
102	TOILET PREPARATIONS INDUSTRY	0.0295	0.0219	0.0370	0.2206	0.4102	0.00004	0.00003	0.00005
103	CHEMICAL & CHEMICAL PRODUCTS NEC	0.3594	0.3236	0.3953	2.4525	4.6063	0.00211	0.00191	0.00231
104	JEWELLERY & PRECIOUS METAL IND.	0.0431	0.0389	0.0474	0.3277	0.5639	0.00005	0.00005	0.00005
105	SPORTING GOODS & TOY INDUSTRIES	0.1347	0.1196	0.1497	0.9978	1.8467	0.00018	0.00017	0.00019
106	SIGN AND DISPLAY INDUSTRY	0.0342	0.0281	0.0402	0.2776	0.4774	0.00002	0.00002	0.00003
107	FLOOR TILE, LINOLEUM, COATED FABRIC	0.1103	0.0739	0.1467	0.9012	1.7460	0.00003	0.00002	0.00004
108	OTHER MANUFACTURING INDUSTRIES NEC	0.0361	0.0276	0.0446	0.2458	0.4536	0.00014	0.00011	0.00018
109	REPAIR CONSTRUCTION	0.0048	0.0035	0.0061	0.0419	0.0716	0.00006	0.00005	0.00008
110	RESIDENTIAL CONSTRUCTION	0.0221	0.0213	0.0230	0.1694	0.2999	0.00063	0.00063	0.00064
111	NON-RESIDENTIAL BLDG. CONSTRUCTION	0.0086	0.0066	0.0107	0.0645	0.1191	0.00015	0.00012	0.00019
112	ROAD, HIGHWAY & AIRSTRIP CONST.	0.0117	0.0099	0.0135	0.0919	0.1643	0.00006	0.00004	0.00007
113	GAS & OIL FACILITY CONSTRUCTION	0.0260	0.0201	0.0320	0.2185	0.3650	0.00030	0.00022	0.00037
114	OAMS & IRRIGATION PROJECTS	0.0780	0.0280	0.1280	0.5837	1.0873	0.00058	0.00016	0.00101
115	RAILWAY & TELEPHONE TELEGRAPH CONST	0.0096	0.0074	0.0117	0.0848	0.1414	0.00002	0.00002	0.00003
116	OTHER ENGINEERING CONSTRUCTION	0.0069	0.0055	0.0082	0.0539	0.0949	0.00005	0.00004	0.00007
117	CONSTRUCTION, OTHER ACTIVITIES	0.0040	0.0018	0.0061	0.0397	0.0670	0.00000	0.00000	0.00000
118	AIR TRANSPORT & SERVICES INCIDENTAL	0.0127	0.0082	0.0173	0.1181	0.2296	0.00010	0.00006	0.00013
119	RAILWAY TRANSPORT & REL. SERVICES	0.0101	0.0095	0.0107	0.0854	0.1360	0.00010	0.00009	0.00010
120	WATER TRANSPORT & REL. SERVICES	0.0146	0.0074	0.0217	0.1161	0.2574	0.00007	0.00003	0.00011
121	TRUCK TRANSPORT INDUSTRIES	0.0122	0.0105	0.0140	0.1411	0.2211	0.00017	0.00015	0.00019
122	URBAN TRANSIT SYSTEM INDUSTRY	0.0217	0.0081	0.0354	0.2033	0.3580	0.00005	0.00002	0.00008
123	INTERURBAN & RURAL TRANSIT SYSTEMS	0.0157	0.0132	0.0181	0.2200	0.3287	0.00001	0.00001	0.00001
124	TAXICAB INDUSTRY	0.0078	0.0067	0.0090	0.0862	0.1375	0.00001	0.00001	0.00001
125	OTHER TRANSPORT & SERV. TD TRANSP.	0.0225	0.0151	0.0300	0.2703	0.4541	0.00008	0.00006	0.00010
126	HIGHWAY & BRIDGE MAINTENANCE INO.	0.0258	0.0235	0.0281	0.3319	0.5274	0.00001	0.00001	0.00001
127	PIPELINE TRANSPORT INDUSTRIES	0.0117	0.0103	0.0130	0.1141	0.2072	0.00004	0.00004	0.00005
128	STORAGE AND WAREHOUSING INDUSTRIES	0.0065	0.0042	0.0089	0.0645	0.1247	0.00001	0.00001	0.00001
129	TELECOMMUNICATION BROADCASTING IND.	0.0144	0.0130	0.0158	0.1579	0.2598	0.00006	0.00005	0.00006
130	TELECOMMUNICATION CARRIERS & OTHER	0.0020	0.0018	0.0021	0.0237	0.0347	0.00003	0.00003	0.00003
131	POSTAL SERVICE INDUSTRY	0.0244	0.0150	0.0338	0.2172	0.3868	0.00007	0.00004	0.00010
132	ELECTRIC POWER SYSTEMS INDUSTRY	0.0097	0.0077	0.0117	0.0894	0.1572	0.00018	0.00014	0.00022
133	GAS DISTRIBUTION SYSTEMS INDUSTRY	0.0057	0.0041	0.0073	0.0603	0.1041	0.00001	0.00001	0.00002
134	OTHER UTILITY INDUSTRIES NEC	0.0115	0.0085	0.0145	0.1343	0.2219	0.00001	0.00001	0.00001
135	WHOLESALE TRADE INDUSTRIES	0.0041	0.0035	0.0047	0.0241	0.0403	0.00016	0.00014	0.00018
136	RETAIL TRADE INDUSTRIES	0.0044	0.0024	0.0064	0.0273	0.0527	0.00022	0.00012	0.00032
137	BANKS, CREDIT UNION & DTH. DEP INST	0.0130	0.0111	0.0150	0.1260	0.2243	0.00013	0.00011	0.00016
138	TRUST, OTHER FINANCE & REAL ESTATE	0.0184	0.0055	0.0313	0.1754	0.3429	0.00088	0.00026	0.00150
139	INSURANCE INDUSTRIES	0.0084	0.0083	0.0085	0.0623	0.1410	0.00007	0.00007	0.00007
140	GOVT. ROYALTIES ON NAT. RESOURCES	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
141	OWNER OCCUPIED DWELLINGS	0.0002	0.0002	0.0002	0.0020	0.0042	0.00001	0.00001	0.00001
142	OTHER BUSINESS SERVICE INDUSTRIES	0.0106	0.0103	0.0109	0.0865	0.1668	0.00011	0.00010	0.00012
143	PROFESSIONAL BUSINESS SERVICES	0.0023	0.0016	0.0030	0.0231	0.0368	0.00003	0.00002	0.00004
144	ADVERTISING SERVICES	0.0025	0.0013	0.0036	0.0205	0.0466	0.00000	0.00000	0.00000
145	EDUCATIONAL SERVICE INDUSTRIES	0.0173	0.0014	0.0332	0.1286	0.2728	0.00003	0.00000	0.00006
146	HOSPITALS	0.0084	0.0019	0.0149	0.0792	0.1460	0.00000	0.00000	0.00001
147	OTHER HEALTH SERVICES	0.0018	0.0017	0.0019	0.0172	0.0295	0.00002	0.00002	0.00002

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DESCRIPTIVE SUMMARY REPORT OF ENTROPY RESULTS FROM AN INDUSTRY  
 DECOMPOSITION OF CONSTANT PRICE INPUTS AT THE L LEVEL OF AGGREGATION  
 FOR THE TIME SERIES 1981-1984 FOR TWO YEAR TIME INTERVALS (CONTINUED)

CODE	INDUSTRY	AVERAGE RAW ENTROPY	MINIMUM RAW ENTRDPY	MAXIMUM RAW ENTROPY	BOUNDED STANDARD. ENTROPY*	UNBOUNDED STANDARD. ENTRDPY*	AVERAGE WEIGHTED ENTROPY	MINIMUM WEIGHTED ENTRDPY	MAXIMUM WEIGHTED ENTROPY
148	ACCOMMODATION & FOOD SERVICE IND.	0.0021	0.0017	0.0024	0.0170	0.0309	0.00005	0.00004	0.00005
149	MOTION PICTURE & VIDEO INDUSTRIES	0.0044	0.0028	0.0061	0.0401	0.0762	0.00001	0.00000	0.00001
150	OTHER AMUSEMENT & RECREATIONAL SERV	0.0057	0.0020	0.0093	0.0557	0.0887	0.00003	0.00001	0.00004
151	LAUNDRIES & CLEANERS	0.0089	0.0019	0.0159	0.0931	0.1576	0.00001	0.00000	0.00003
152	OTHER PERSONAL SERVICES	0.0014	0.0012	0.0015	0.0121	0.0212	0.00001	0.00000	0.00001
153	PHOTOGRAPHERS	0.0130	0.0072	0.0187	0.1172	0.2284	0.00001	0.00000	0.00001
154	MISC. SERVICE INDUSTRIES	0.0051	0.0029	0.0072	0.0442	0.0795	0.00004	0.00002	0.00006
155	OPERATING SUPPLIES	0.0833	0.0645	0.1020	0.7183	1.3332	0.00163	0.00117	0.00209
156	OFFICE SUPPLIES	0.0096	0.0035	0.0158	0.1623	0.2526	0.00005	0.00002	0.00009
157	CAFETERIA SUPPLIES	0.0007	0.0006	0.0008	0.0087	0.0150	0.00000	0.00000	0.00000
158	LABORATORY SUPPLIES	0.0078	0.0067	0.0089	0.0956	0.1479	0.00001	0.00001	0.00002
159	TRAVEL & ENTERTAINMENT	0.0017	0.0014	0.0020	0.0180	0.0314	0.00002	0.00002	0.00002
160	ADVERTISING & PROMOTION	0.0015	0.0009	0.0021	0.0205	0.0371	0.00001	0.00001	0.00002
161	TRANSPORTATION MARGINS	0.0066	0.0042	0.0090	0.1358	0.2419	0.00013	0.00008	0.00017

\* VALUES HAVE BEEN MULTIPLIED BY 100

### **APPENDIX 3**

**Alternative Significance Test Results for Absolute Differences  
Between Paired Entropy Results Corresponding to Current and Constant  
Price Industry Input Structures by Time Interval and by Decade.**

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A ONE YEAR INTERVAL OF COMPARISON

A3-1

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
1 AGRICULTURAL & RELATED SERVICES IND		+				
2 FISHING & TRAPPING INDUSTRIES			+	+		
3 LOGGING & FORESTRY INDUSTRIES	+++	+++	+++	+++		
4 GOLD MINES	+++	+++	++	+++		
5 OTHER METAL MINES			++	++		+
6 IRON MINES	+++	+++				
7 ASBESTOS MINES	+	+				
8 NON-METAL MINES EX COAL & ASBESTOS	+++	+++	+++			
9 SALT MINES	+++	+++				
10 COAL MINES	+++	+++				+
11 CRUDE PETROLEUM & NATURAL GAS	+++	+++				
12 QUARRY & SAND PIT INDUSTRIES	+++	+++	+	+		
13 SERVICE RELATED TO MINERAL EXTRACT.						
14 MEAT & MEAT PRODUCTS (EXC. POULTRY)						
15 POULTRY PRODUCTS INDUSTRY						
16 FISH PRODUCTS INDUSTRY						
17 FRUIT AND VEGETABLE INDUSTRIES			+++	+++		
18 DAIRY PRODUCTS INDUSTRIES						
19 FEED INDUSTRY						
20 VEGETABLE OIL MILLS (EXC. CORN OIL)	—	—				
21 BISCUIT INDUSTRY		+	++	++		
22 BREAD & OTHER BAKERY PRODUCTS IND.						+
23 CANE & BEET SUGAR INDUSTRY	+++	++	++	+		
24 MISC. FOOD PRODUCTS INDUSTRIES			++	++		
25 SOFT ORINK INDUSTRY						+
26 DISTILLERY PRODUCTS INDUSTRY			+++	+++		
27 BREWERY PRODUCTS INDUSTRY			+++	+		
28 WINE INDUSTRY			++			
29 TOBACCO PRODUCTS INDUSTRIES	++	+				
30 RUBBER PRODUCTS INDUSTRIES			+++	+++		++
31 PLASTIC PRODUCTS INDUSTRIES	++	+	++	++		
32 LEATHER TANNERIES	+++	++	+++	+++		
33 FOOTWEAR INDUSTRY						
34 MISC. LEATHER & ALLIED PROD. IND.	+	+	+++	+		
35 MAN-MADE FIBRE YARN & WOVEN CLOTH	+++	+++	+	+		
36 WOOL YARN & WOVEN CLOTH INDUSTRY			++	+		
37 BROAD KNITTED FABRIC INDUSTRY			++	++		
38 MISC. TEXTILE PRODUCTS INDUSTRIES			+++	++		
39 CONTRACT TEXTILE DYEING & FINISHING	+++	+++				
40 CARPET, MAT & RUG INDUSTRY	++	+	+			
41 CLOTHING INDUSTRIES EXC. HOSIERY	-	-	+	+		
42 HOSIERY INDUSTRY	++	++	+	+		
43 SAWMILLS, PLANING & SHINGLE MILLS	++		+++	+++		
44 VENEER AND PLYWOOD INDUSTRIES	+++	+	+++	++		+

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01  
 ++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025  
 +/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A ONE YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-2

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
45 SASH, DOOR & OTHER MILLWORK IND.						
46 WOODEN BOX & COFFIN INDUSTRIES	+	+				
47 OTHER WOOD INDUSTRIES						
48 HOUSEHOLD FURNITURE INDUSTRIES						
49 OFFICE FURNITURE INDUSTRIES	+++	++				
50 OTHER FURNITURE & FIXTURE IND.	+++	+++				
51 PULP & PAPER INDUSTRIES	++	++	+++		+	
52 ASPHALT ROOFING INDUSTRY	+++	+++	+		+	
53 PAPER BOX & BAG INDUSTRIES	+	+	+++	+++		
54 OTHER CONVERTED PAPER PRODUCTS IND.	+	+	+	+	++	
55 PRINTING & PUBLISHING IND.			+++	+++		
56 PLATEMAKING, TYPESETTING & BINDERY					+	
57 PRIMARY STEEL INDUSTRIES	++	+++	+++		+	
58 STEEL PIPE & TUBE INDUSTRY	+++	++				
59 IRON FOUNDRIES			+++		+	
60 NON-FERROUS SMELTING & REFINING IND			+++		+	
61 ALUMINUM ROLLING CASTING, EXTRUDING	++	++	+++	++		
62 COPPER ROLLING CASTING & EXTRUDING			+++		++	
63 OTHER METAL ROLLING, CASTING ETC.			+++		++	
64 POWER BOILER & STRUCT. METAL IND.	+++		+++	++		
65 ORNAMENTAL & ARCH. METAL PROD. IND.						
66 STAMPED, PRESSED & COATED METALS	+++	+++	+			-
67 WIRE AND WIRE PRODUCTS INDUSTRIES	+		+++	+++		
68 HARDWARE, TOOL & CUTLERY INDUSTRIES			+		+	
69 HEATING EQUIPMENT INDUSTRY	++	++	+++	++		
70 MACHINE SHOPS INDUSTRY	+++	+	++		+	
71 OTHER METAL FABRICATING INDUSTRIES			++		++	
72 AGRICULTURE IMPLEMENT INDUSTRY			+++	+++		
73 COMMERCIAL REFRIGERATION EQUIPMENT			+++	+++		
74 OTHER MACHINERY & EQUIPMENT IND.	++	++				
75 AIRCRAFT & AIRCRAFT PARTS INDUSTRY			++		+	
76 MOTOR VEHICLE INDUSTRY	+++	+++				
77 TRUCK, BUS BODY & TRAILER INDUSTRY	+++		+++	+++		
78 MOTOR VEHICLE PARTS & ACCESSORIES	+	+	+++	++		
79 RAILROAD ROLLING STOCK INDUSTRY						
80 SHIPBUILDING AND REPAIR INDUSTRY						
81 MISC. TRANSPORTATION EQUIPMENT IND.	+++	+	+++	+++		
82 SMALL ELECTRICAL APPLIANCE INDUSTRY	+++	+++	+++	+++		
83 MAJOR APPLIANCES (ELEC & NON-ELEC.)	+++		+++	+++		
84 RECORD PLAYERS, RADIO & TV RECEIVER	+++	++	+			
85 ELECTRONIC EQUIPMENT INDUSTRIES	+++	+				
86 OFFICE, STORE & BUSINESS MACHINES	+++		+++	++		++
87 COMMUNICATIONS, ENERGY WIRE & CABLE			+++	+++		
88 BATTERY INDUSTRY	++	+	+++	+++		

+++/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01  
 ++/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025  
 +/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A ONE YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-3

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
89 OTHER ELECT. & ELECTRONIC PRODUCTS	+++	+++		+		
90 CLAY PRODUCTS INDUSTRY	+++	++	++	++		
91 CEMENT INDUSTRY			++			
92 CONCRETE PRODUCTS INDUSTRY	++	+	+++	+++		+
93 READY-MIX CONCRETE INDUSTRY			+	++		
94 GLASS & GLASS PRODUCTS INDUSTRIES			+++	+++		
95 NON-METALLIC MINERAL PRODUCTS NEC		++	+++	+++		
96 REFINED PETROLEUM & COAL PRODUCTS	++	+		+		
97 INDUSTRIAL CHEMICALS INDUSTRIES NEC			+++	++		
98 PLASTIC & SYNTHETIC RESIN INDUSTRY			++	++		+++
99 PHARMACEUTICAL & MEDICINE INDUSTRY			+++	+++		
100 PAINT AND VARNISH INDUSTRY						
101 SOAP & CLEANING COMPOUNDS INDUSTRY			++	+++		
102 TOILET PREPARATIONS INDUSTRY			++	++		
103 CHEMICAL & CHEMICAL PRODUCTS NEC						
104 JEWELLERY & PRECIOUS METAL IND.						
105 SPORTING GOODS & TOY INDUSTRIES			+++	+++		
106 SIGN AND DISPLAY INDUSTRY						
107 FLOOR TILE, LINOLEUM, COATED FABRIC			+++	+++		
108 OTHER MANUFACTURING INDUSTRIES NEC		+	+			
109 REPAIR CONSTRUCTION						
110 RESIDENTIAL CONSTRUCTION						
111 NON-RESIDENTIAL BLDG. CONSTRUCTION			++	+++		++
112 ROAD, HIGHWAY & AIRSTRIP CONST.						
113 GAS & DIL FACILITY CONSTRUCTION						++
114 DAMS & IRRIGATION PROJECTS			+			
115 RAILWAY & TELEPHONE TELEGRAPH CONST						
116 OTHER ENGINEERING CONSTRUCTION						
117 CONSTRUCTION, OTHER ACTIVITIES						
118 AIR TRANSPORT & SERVICES INCIDENTAL			+			
119 RAILWAY TRANSPRT & REL. SERVICES			+			
120 WATER TRANSPORT & REL. SERVICES			++	++		
121 TRUCK TRANSPORT INDUSTRIES						
122 URBAN TRANSIT SYSTEM INDUSTRY			+			
123 INTERURBAN & RURAL TRANSIT SYSTEMS	+++	++	+++	+++		
124 TAXICAB INDUSTRY						
125 OTHER TRANSPORT & SERV. TO TRANSP.			+			
126 HIGHWAY & BRIDGE MAINTENANCE IND.	—					
127 PIPELINE TRANSPORT INDUSTRIES	+++	+++	+	+		
128 STORAGE AND WAREHOUSING INDUSTRIES			++	+		
129 TELECOMMUNICATION BROADCASTING IND.			+			
130 TELECOMMUNICATION CARRIERS & OTHER	++	+++	+++	+++		
131 POSTAL SERVICE INDUSTRY						
132 ELECTRIC POWER SYSTEMS INDUSTRY	+++	+++	+			

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01  
 ++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025  
 +/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A ONE YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-4

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
133 GAS DISTRIBUTION SYSTEMS INDUSTRY						
134 OTHER UTILITY INDUSTRIES NEC	+++	++				
135 WHOLESALE TRADE INDUSTRIES	++	++	+			
136 RETAIL TRADE INDUSTRIES	+++	+++	+++	+++		+
137 BANKS, CREDIT UNION & OTH. DEP INST	+++	+	+			
138 TRUST, OTHER FINANCE & REAL ESTATE	++	+++	+++	++		+
139 INSURANCE INDUSTRIES						
140 GOVT. ROYALTIES DN NAT. RESOURCES						
141 OWNER OCCUPIED DWELLINGS	+++	+++	+++	++		+
142 OTHER BUSINESS SERVICE INDUSTRIES	+++		++	+++		
143 PROFESSIONAL BUSINESS SERVICES			++			
144 ADVERTISING SERVICES						
145 EDUCATIONAL SERVICE INDUSTRIES			+++	+++		
146 HOSPITALS	—	—				
147 OTHER HEALTH SERVICES			+	++		
148 ACCOMMODATION & FOOD SERVICE IND.			+++	+++		
149 MOTION PICTURE & VIDEO INDUSTRIES						
150 OTHER AMUSEMENT & RECREATIONAL SERV	+					+
151 LAUNDRIES & CLEANERS						
152 OTHER PERSONAL SERVICES						
153 PHOTOGRAPHERS			+++	+		+
154 MISC. SERVICE INDUSTRIES			+	+		
155 OPERATING SUPPLIES			—	—		—
156 OFFICE SUPPLIES	++					
157 CAFETERIA SUPPLIES	+++	+++	+++	+++		
158 LABORATORY SUPPLIES	—	—	—	—		—
159 TRAVEL & ENTERTAINMENT	—	—	—	—		
160 ADVERTISING & PROMOTION						
161 TRANSPORTATION MARGINS						

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01  
 ++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025  
 +/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A TWO YEAR INTERVAL OF COMPARISON

A3-5

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
1 AGRICULTURAL & RELATED SERVICES IND	++	+	++			
2 FISHING & TRAPPING INDUSTRIES			+	+	+	
3 LOGGING & FORESTRY INDUSTRIES	++	++	+++	+++		
4 GOLD MINES	++	+	+	+	++	
5 OTHER METAL MINES			+++	+++		
6 IRON MINES	+++	+++				
7 ASBESTOS MINES	+					
8 NON-METAL MINES EX COAL & ASBESTOS	+++	+++	+++	+		
9 SALT MINES	+	++				
10 COAL MINES	+++	+++				
11 CRUDE PETROLEUM & NATURAL GAS	+++	+				
12 QUARRY & SAND PIT INDUSTRIES	+++	+++	+			
13 SERVICE RELATED TO MINERAL EXTRACT.						
14 MEAT & MEAT PRODUCTS (EXC. POULTRY)						
15 POULTRY PRODUCTS INDUSTRY						
16 FISH PRODUCTS INDUSTRY	+	+				
17 FRUIT AND VEGETABLE INDUSTRIES			++	++		
18 DAIRY PRODUCTS INDUSTRIES			++	++		
19 FEED INDUSTRY	-	-				
20 VEGETABLE OIL MILLS (EXC. CORN OIL)	-	-				
21 BISCUIT INDUSTRY			+	++		
22 BREAD & OTHER BAKERY PRODUCTS IND.						+
23 CANE & BEET SUGAR INDUSTRY			+++	+++		
24 MISC. FOOD PRODUCTS INDUSTRIES	+	++	+	++		
25 SOFT DRINK INDUSTRY			++	+++		
26 DISTILLERY PRODUCTS INDUSTRY			+++	+++		
27 BREWERY PRODUCTS INDUSTRY			+++	++		
28 WINE INDUSTRY						
29 TOBACCO PRODUCTS INDUSTRIES			+++	+++		
30 RUBBER PRODUCTS INDUSTRIES			++	++		
31 PLASTIC PRODUCTS INDUSTRIES	+++	+	++	++		
32 LEATHER TANNERIES	+++	+++	+++	+		
33 FOOTWEAR INDUSTRY						
34 MISC. LEATHER & ALLIED PROD. IND.	+	+	++	++		
35 MAN-MADE FIBRE YARN & WOVEN CLOTH	+++	+++	+	+		
36 WOOL YARN & WOVEN CLOTH INDUSTRY			+++	++		
37 BROAD KNITTED FABRIC INDUSTRY						
38 MISC. TEXTILE PRODUCTS INDUSTRIES			++	++		
39 CONTRACT TEXTILE DYEING & FINISHING	+++	+				
40 CARPET, MAT & RUG INDUSTRY			+	++		
41 CLOTHING INDUSTRIES EXC. HOSIERY	-	-	+	+		
42 HOSIERY INDUSTRY	++	++	++	++		
43 SAWMILLS, PLANING & SHINGLE MILLS	+++	++	+++	+++		
44 VENEER AND PLYWOOD INDUSTRIES	++	+	++	++		

+++/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01

++/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025

+- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A TWO YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-6

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST	
45 SASH, DOOR & OTHER MILLWORK IND.						
46 WOODEN BOX & COFFIN INDUSTRIES						
47 OTHER WOOD INDUSTRIES						
48 HOUSEHOLD FURNITURE INDUSTRIES						
49 OFFICE FURNITURE INDUSTRIES						
50 OTHER FURNITURE & FIXTURE IND.	+	+				
51 PULP & PAPER INDUSTRIES	++	++	++			
52 ASPHALT ROOFING INDUSTRY	+++	++	+++	+++		
53 PAPER BOX & BAG INDUSTRIES	+++	+++	++	++		++
54 OTHER CONVERTED PAPER PRODUCTS IND.			+++	+++		
55 PRINTING & PUBLISHING IND.			+++	+++		
56 PLATEMAKING, TYPESETTING & BINDERY			+	++		
57 PRIMARY STEEL INDUSTRIES	+++	++	++	++		
58 STEEL PIPE & TUBE INDUSTRY	++	++				
59 IRON FOUNDRIES			+++	+++		
60 NON-FERROUS SMELTING & REFINING IND			+			
61 ALUMINUM ROLLING CASTING, EXTRUDING			++	++		
62 COPPER ROLLING CASTING & EXTRUDING			+	+		
63 OTHER METAL ROLLING, CASTING ETC.						
64 POWER BOILER & STRUCT. METAL IND.	+++	++				
65 ORNAMENTAL & ARCH. METAL PROD. IND.						
66 STAMPED, PRESSED & COATED METALS	+	+	+			
67 WIRE AND WIRE PRODUCTS INDUSTRIES	+		+++	+++		
68 HARDWARE, TOOL & CUTLERY INDUSTRIES			+	++		
69 HEATING EQUIPMENT INDUSTRY		+	+	+		
70 MACHINE SHOPS INDUSTRY						
71 OTHER METAL FABRICATING INDUSTRIES			+++	+++		
72 AGRICULTURE IMPLEMENT INDUSTRY			+++	+++		+
73 COMMERCIAL REFRIGERATION EQUIPMENT			+++	+++		
74 OTHER MACHINERY & EQUIPMENT IND.			+++	+++		
75 AIRCRAFT & AIRCRAFT PARTS INDUSTRY			++	++		
76 MOTOR VEHICLE INDUSTRY	+++	+++	++	++		
77 TRUCK, BUS BODY & TRAILER INDUSTRY	++		++	++		
78 MOTOR VEHICLE PARTS & ACCESSORIES			+++	+++		+++
79 RAILROAD ROLLING STOCK INDUSTRY						
80 SHIPBUILDING AND REPAIR INDUSTRY						
81 MISC. TRANSPORTATION EQUIPMENT IND.	+++	++	+++	++		
82 SMALL ELECTRICAL APPLIANCE INDUSTRY	+++	+++	+++	+++		
83 MAJOR APPLIANCES (ELEC & NON-ELEC.)	+++	+++	++	++		
84 RECORD PLAYERS, RADIO & TV RECEIVER	++	++	++	++		
85 ELECTRONIC EQUIPMENT INDUSTRIES	++	++				
86 OFFICE, STORE & BUSINESS MACHINES	+++		+++	+++		++
87 COMMUNICATIONS, ENERGY WIRE & CABLE			+++	++		
88 BATTERY INDUSTRY	+		++	++		

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01

++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025

+/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A TWO YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-7

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
89 OTHER ELECT. & ELECTRONIC PRODUCTS	++	+++				
90 CLAY PRODUCTS INDUSTRY	+	+	++	+++		
91 CEMENT INDUSTRY						
92 CONCRETE PRODUCTS INDUSTRY		++	+	+		
93 READY-MIX CONCRETE INDUSTRY			++	+++		
94 GLASS & GLASS PRODUCTS INDUSTRIES			++	+++		
95 NDN-METALIC MINERAL PRODUCTS NEC	++	++	++	+++		
96 REFINED PETROLEUM & COAL PRODUCTS	+++	+++				
97 INDUSTRIAL CHEMICALS INDUSTRIES NEC	+	+	+++	+++		
98 PLASTIC & SYNTHETIC RESIN INDUSTRY			++	+++		
99 PHARMACEUTICAL & MEDICINE INDUSTRY			++	+++		
100 PAINT AND VARNISH INDUSTRY					++	
101 SOAP & CLEANING COMPOUNDS INDUSTRY			++	++		
102 TOILET PREPARATIONS INDUSTRY	+	+	++	++		
103 CHEMICAL & CHEMICAL PRODUCTS NEC						
104 JEWELLERY & PRECIOUS METAL IND.				+		
105 SPORTING GOODS & TOY INDUSTRIES	—	-	++	+++		
106 SIGN AND DISPLAY INDUSTRY						
107 FLOOR TILE, LINOLEUM, COATED FABRIC			++	+++		
108 OTHER MANUFACTURING INDUSTRIES NEC			+			
109 REPAIR CONSTRUCTION						+++
110 RESIDENTIAL CONSTRUCTION						
111 NON-RESIDENTIAL BLDG. CONSTRUCTION			+++	+++		+
112 ROAD, HIGHWAY & AIRSTRIP CONST.	—	—				
113 GAS & OIL FACILITY CONSTRUCTION						
114 DAMS & IRRIGATION PROJECTS			+	+		
115 RAILWAY & TELEPHONE TELEGRAPH CONST						
116 OTHER ENGINEERING CONSTRUCTION						
117 CONSTRUCTION, OTHER ACTIVITIES						
118 AIR TRANSPORT & SERVICES INCIDENTAL		+	++	++		
119 RAILWAY TRANSPORT & REL. SERVICES				+		
120 WATER TRANSPORT & REL. SERVICES		+	+++	+++		
121 TRUCK TRANSPORT INDUSTRIES						
122 URBAN TRANSIT SYSTEM INDUSTRY						
123 INTERURBAN & RURAL TRANSIT SYSTEMS	+++	++	+++	+++		
124 TAXICAB INDUSTRY						
125 OTHER TRANSPORT & SERV. TO TRANSP.						
126 HIGHWAY & BRIDGE MAINTENANCE IND.	—	—				
127 PIPELINE TRANSPORT INDUSTRIES	++	++	++	++		
128 STORAGE AND WAREHOUSING INDUSTRIES			++	+		
129 TELECOMMUNICATION BROADCASTING IND.			++			
130 TELECOMMUNICATION CARRIERS & OTHER			++	++		++
131 POSTAL SERVICE INDUSTRY						
132 ELECTRIC POWER SYSTEMS INDUSTRY	+	+				

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01

++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025

+/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

SIGNIFICANCE RESULTS OF TESTS FOR DIFFERENCES BETWEEN PAIRED ENTROPY  
 ESTIMATES CORRESPONDING TO CURRENT VS. CONSTANT PRICE INPUTS  
 FOR A TWO YEAR INTERVAL OF COMPARISON (CONTINUED)

A3-8

INDUSTRY	TIME PERIOD					
	1961-1971		1971-1981		1981-1984	
	SIGNED RANK	T TEST	SIGNED RANK	T TEST	SIGNED RANK	T TEST
133 GAS DISTRIBUTION SYSTEMS INDUSTRY	+		++	++		++
134 OTHER UTILITY INDUSTRIES NEC	+++	+				
135 WHOLESALE TRADE INDUSTRIES	+++	+++		++		
136 RETAIL TRADE INDUSTRIES	+++	+++	++	++		
137 BANKS, CREDIT UNION & OTH. DEP INST	+++	++				
138 TRUST, OTHER FINANCE & REAL ESTATE	+++	+++	+++	+++		+++
139 INSURANCE INDUSTRIES						
140 GOVT. ROYALTIES ON NAT. RESOURCES						
141 OWNER OCCUPIED DWELLINGS	+++	+++	+++	++		
142 OTHER BUSINESS SERVICE INDUSTRIES	+++	++				
143 PROFESSIONAL BUSINESS SERVICES			+++	+++		+
144 ADVERTISING SERVICES						
145 EDUCATIONAL SERVICE INDUSTRIES			+++	+++		
146 HOSPITALS	—	—	—	—		
147 OTHER HEALTH SERVICES			+++	+++		
148 ACCOMMODATION & FOOD SERVICE IND.			+++	+++		
149 MOTION PICTURE & VIDEO INDUSTRIES						
150 OTHER AMUSEMENT & RECREATIONAL SERV	++	++				
151 LAUNDRIES & CLEANERS						
152 OTHER PERSONAL SERVICES						+++
153 PHOTOGRAPHERS			++	+		
154 MISC. SERVICE INDUSTRIES			—	—		—
155 OPERATING SUPPLIES			—	—		—
156 OFFICE SUPPLIES	+++	+	—	—		
157 CAFETERIA SUPPLIES	+++	+++	+++	+++		
158 LABORATORY SUPPLIES	—	—	—	—		
159 TRAVEL & ENTERTAINMENT	—	—	—	—		++
160 ADVERTISING & PROMOTION						
161 TRANSPORTATION MARGINS						

+++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.01

++/— INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.025

+/- INDICATES POSITIVE/NEGATIVE DIFFERENCES WERE SIGNIFICANT WITH ALPHA=0.05

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