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Census and Input Output Data, 1972

DATASET NAME: I072CEN

ABSTRACT: This dataset includes numerous variables from the 1972 BEA INPUT-OUTPUT study. This data has been arranged by SIC so that we will have, for future work, a dataset that will conform to other variables, such as concentration ratios, which are arranged according to SIC. This data can be used to calculate variables such as the fraction of a commodity's sales that go to consumers, gov't, etc. Data on imports will be useful as a supplement to the domestic concentration ratios, and the advertising sales variable will be of interest to researchers as well.

DATASET ORGANIZATION: There are 450 records on this dataset, one for each of the 1972 SIC MANUFACTURING INDUSTRIES. The order in which the variables appear on the dataset follows the order by which they are defined below. The JCL for accessing this data from tape appears below.

CITATION: RESEARCH PROGRAM IN COMPETITION AND BUSINESS POLICY GSM, UCLA

VARIABLES:

1) SIC CODE

2) SIC NAME

3) TOTOUT
Total output of the commodity whose input-output code is given later in the record. it is the sum of 4), 5), 6), 9) and 10).

4) INTER
Total sales of this commodity to industries. This excludes those purchases by other industries for fixed capital purposes.

5) CONS
Total sales of this commodity to final consumers.

6) INVEST
Total investment purchases of this commodity by industries for investment purposes. This is the sum of 7) and 8).

7) FIXCAP

industries engaging in fixed capital expenditures. This value is often equal to zero, as in the case of numerous commodities that are never purchased as a fixed fixed capital investment by anyone.

8) INVEN
Net change in inventories of this commodity.

9) EXPORT
Total sales of this commodity to foreign buyers.

10) GOVT
Total sales of this commodity to all levels of govt. This excludes purchases by certain govt. enterprises such as the post office, which the BEA treats as separate industries. This value is the sum of 11) and 14).

11) FEDGOV
Total sales of this commodity to the federal govt. It is equal to the sum of 12) and 13).

12) FEDEF
Total sales of this commodity to the federal govt. for defense purposes.

13) FEDOT
Total demand by the federal govt. for non-defense purpcses.

14) SLGOV
Total sales of this commodity to state and local govt. SLGOV is the sum of 15), 16), 17) and 18).

15) SLED
Total sales of this commodity to state and local govt. for educational purposes.

16) SLHEW
Total sales of this commodity to state and local govt. for purposes of health and welfare.

17) SLSAF
Total sales of this commodity to state and local govt. for safety purposes.

18) SLOTH
Total sales of this commodity to state and local govt. that do not fall into either 15), 16) or 17).

19) ADVEX
Total purchases of advertising by this industry. i.e. the IOCODE given elsewhere on this record is for both a commodity and its associated industry.

industries while the former is inclusive of all sales of (and only of) the commodity, whether produced by the industry to which it is the primary product or not. It is the commodity definition for which the IO study has the destination of sales data defined above. These however, are industry purchases. Advertising is defined the same in 1972 and 1976

20) IMPORT
Total value of the imports of this commodity.

21) IOCODE
This is the IOCODE associated with the data defined on this record. It is also the one that corresponds to (or includes,in those cases where SICNUM is not equal to 1) the SIC at the beginning of the record.

22) SICNUM
The number of SIC industries included in the IOCODE above. If there is a one to one relationship between the SIC and the IO industry, then there is no problem with using the data above in studies that use other SIC variables (such as the concentration ratio). However when SICNUM is greater than 1, each of the values on this dataset will be the sum of the values for the individual SICs included in the IOCODE, and hence they will be identical for each SIC included in the same IOCODE. The great majority of industries are one to one matches however, and for most purposes it would probably be desirable to confine oneself to those industries. Note finally, that in the one to one cases, the advertising to sales ratio (as well as the VOS to output ratio) will have little meaning, and will be smaller than the true ratio for the individual SIC at the head of the record.

23) VOS
The value of shipments of the SIC at the start of the record. This information is from the 1972 CENSUS OF MANUFACTURERS.

24) VOSSUM
The value of shipments of the SICs included in the IO industry. Note that this figure will be identical to VOS when SICNUM=1.

25) MAKE
The total value of shipments of the IO industry, not the commodity, corresponding to IOCODE. This value

the industry, both primary and secondary. This makes it analagous to the definition used for Census industries, and in fact the ratio of VOS to MAKE is nearly always very close to 1 (when SICNUM=1), whereas TOTOUT is a commodity, not an industry figure. While the distribution of each commodity's sales is available, and is described above, the distribution of each industry's sales is not. Although we would want to use this MAKE figure as the denominator in any advertising to sales ratio that we might employ (since both are industry values), it may be that the closest we can come to approximating the distrubution of industry output is to use the distribution of the primary commodity's output.

ALL OF THE VALUES ABOVE ARE IN $MILLIONS.

JCL: In order to read this data, one would use the following Format and JCL.

```
      DO 1 I=1,450
      READ(8,100) SIC(I),(NAME(I,NN),NN=1,14),
     *TOTOUT(I),INTER(I),CONS(I),INVEST(I),
     *FIXCAP(I),INVEN(I),EXPORT(I),GOVT(I),
     *FEDGOV(I),FEDEF(I),FEDOT(I),SLGOV(I),
     *SLED(I),SLHEW(I),SLSAF(I),SLOTH(I),
     *ADVER(I),IMPORT(I),IOCODE(I),SICNUM(I),
     *VOS(I),VOSSUM(I),MAKE(I)
  100 FORMAT(I4,14A3,18F10.1,I6,I2,F7.1,F9.1,F10.1)
    1 CONTINUE
      STOP
      END
//GO.FT08F001 DD DSN=IC72CEN,DISP=OLD,unit=tape6250,
// label=(20,sl,,in),vol=ser=databk,
// dcb=(recfm=fb,lrecl=260,blksize=5980)
//
```

Notes: 1) An article explaining various aspects of the 1972 IO study appears in the April,1979 SURVEY OF CURRENT BUSINESS.

2) All the IO data is on our tape named 29190.

3) For a number of SICs it was found that the ratio of CENSUS VOS to IO MAKE (see definition above) was significantly different from 1 (this for industries where SICNUM is equal to one). Below I list the industries for which the ratio is at least .2 away from 1. In the first field below I list the SIC, then the IO code, then the name of the industry, and finally the ratio of VOS to MAKE. This discrepancy is important to keep in mind (and/or appropriately correct wherever possible for at least the following two reasons. One, the

CENSUS variables such as the SIC 4-firm concentration ratio we want to be sure that the IO and SIC industries are in fact defined similarly. More generally, studies using this dataset will be using a combination of CENSUS and IO variables, and the results of any such study will be highly suspect if different industries are treated similarly. Two, even if the IO and the SIC refer to the same industry, differing total output figures indicate that the IO people are treating the industry differently than the CENSUS people. Again, results will have dubious validity unless an adjustment to those industries is made.

Washington informs us that the following factors should help explain the discrepancies for some of the industries noted below. Documentation received from Washington indicates the exact nature of many of the adjustments that were made. This document can be found in the files of the RECRF.

1) EXCISE TAXES--The IO people include excise taxes when calculating the value of an industry's output (MAKE), while the CENSUS (SIC) people do not. This probably explains, for example, why the ratio of VOS to MAKE for the cigarette industry is only .632. We will try to get data on the total value of excise taxes for some of these industries and adjust where possible.

2) WHOLESALE ACTIVITIES--For some of the industries the IO people have included various wholesale transactions to the value of output (MAKE), whereas the CENSUS people have not. This is another factor which would seem to bias the ratio downward for certain industries.

3) RENTALS--The IO people say that they may be leaving out some rental and leasing figures that the CENSUS people include. This might bias the ratio upward.

Here are the industries with ratios significantly different from unity.

2076	142600	Vegetable oil mills,n.e.c.	1.318
2082	142101	Malt liquors	.784
2084	142103	Wines,brandy, and brandy spirits	.698
2085	142104	Distilled liquor, except brandy	.355
2091	140700	Canned and cured sea foods	1.475
2111	150101	Cigarettes	.632
2141	150200	Tobacco stemming and redrying	.598
2299	171002	Textile goods,n.e.c.	.774
2411	200100	Logging camps and logging contractors	.570
3151	340301	Leather gloves and mittens	1.323

3579	510400	Office machines,n.e.c.	2.172
3915	640102	Jewelers materials and lapidary work	.486

4) A brief summary of the IO-CENSUS correspondence.

Total # of Manufacturing industries: IO-367, SIC-450.

Total # of Manufacturing SICs that go with 1 IO Manuf. industry-334

Of the 450 SICs in IO72CEN, 334 are 1 to 1 matches with the IO data. 116 of them are aggregated into IO CODES, and hence the data involved in most of the variables (all except VOS) is for more SICs than just the one listed in the first field.

WARNING: Extreme caution should be exercised when using any record that has SICNUMS not equal to 1, for then data is not solely for the SIC to which this record applies.