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HARVARD INSTITUTE FOR INTERNATIONAL DEVELOPMENT

EMPLOYMENT AND SMALL ESTABLISHMENT

POLICY PLANNING PROJECT

PLANNING COMMISSION

GOVERNMENT OF BANGLADESH

DOCUMENTATIONS

of

VARIABLE RECORDS

of

TIME-SERIES MICRO DATA

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MARCH 1989

HIID/ESEPP WORKING PAPER NO. 9

S2-5

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CONTENTS

Documentation		Page
Preliminaries		
Pasrt 1	: Census of Manufacturing Industries, 1974-75, 1975-76, 1979-80 through 1983-84	1
Part 2	: The Economic Census Data, Pre-1972, 1972, through 1986	12
Part 3	: The Department of Industries' Data, 1976-77 through 1985-86	17
Part 4	: Household Expenditure Survey 1985-86	22
Part 5	: CMI Updated upto 1985-86 Master Tape	30
Part 6	: CMI Updated upto 1985-86: Summary Tape with Q, K, RM, and L_i	36
Part 7	: Labor Force Survey, 1985-86	44
Part 8	: Effective Rates of Assistance, 1973-74 through 1987-88	48
Part 9	: HIID/IND Survey (In Progress)	

BRIEF INTRODUCTION

TO THE DATA TAPES

1. The merge file of the data of the Census of Manufacturing Industries was prepared from the annual master tapes by expunging identification codes to maintain the confidentiality of individual establishments for years from 1974-75, 1975-76, 1979-80 through 1983-84. The data pertain to production, costs, employment, and related variables. These data are recorded at the establishment level and by four-digit industries. Computed variables, such as total factor productivities, are also recorded. These data pertain to the manufacturing indsutry only, and are not supposed to cover establishments with fewer than 10 workers. The name census is a misnomer; it is essentially a survey of approximately 15% of the establishments with 10 workers or more. The raw data were thoroughly cleaned up by the project. This data set is analyzed, among other reports, in HIID/ESEPP Reports No. 3 and 15, where the cleaning-up procedure is also described.

2. The annual series of the data of the Economic Census were generated by this project from the answer to the census question: "When did the establishment start production?" The census has mainly two basic variables: the number of establishments (mechanized, etc.) and persons engaged. The master tape used is the 5% sample of the 1.4 million nonagricultural permanent establishments of the Economic Census, 1986. The data recorded in the project tape are not at the establishment level, but only

at the 4-digit-industry level. These data are analyzed, among other writings, in HIID/ESEPP Reports No. 4 and 11.

3. The data of the Department of Industries (DI) of the Ministry of Industry were computerized from the unpublished records of the Department. The data are generated as a part of the Process of registration of firms. The source reports only one important variable, namely investment (separated into external and domestic components). While any firm can register with the DI, a large majority are from manufacturing industries. The data are listed in the project tape at the firm level as well as at the 4-digit-industry level. This data series is analyzed, among other papers, in HIID/ESEPP Repot No. 12.

4. The Household Expenditure Survey, 1985-86. This survey contains data on expenditures, incomes, and related variables. It consists of approximately 6000 households. Daily expenditures were aggregated at monthly level. After that information on daily expenditures was omitted. Only monthly expenditures were retained on the tape. The researcher is cautioned that agricultural production, sales, and self-consumption data, understandably generated, among other purposes, to estimate self-consumption, are not adequately cleaned up.

5. The Updated CMI: Master Tape. The data for two additional years wre added to the earlier merge file, namely for 1984-85 and 1985-86. These data were again cleaned up thoroughly.

6. The Updated CMI: Summary Tape. Two files were prepared. One master file which consists of almost all varibles. The other

is a summary file containing data for production functions, namely output, raw materials, capital stock, and labor by six skill classes. A study of stochastic frontier production functions and firm efficiency is in progress as of Jan 1990.

7. The Labor Force Survey, 1985-86. The survey consists of approximately 6000 respondents and is done at the household (not enterprise) level. The researcher is cautioned that we hve not done any cleaning-up work on this survey as we did for the CMI. There are missing values here and there. Certain commands will be needed to take account of them. A study based on this source of data and minimum-wage vriable injected from outside is in progress as of Jan 1990.

8. The HIID/IND Ssurvey, 1988-89. This is HIID/ESEPP's own baby. The documentation of variable records has not yet been finalized.

9. The ERA data. The effective rates of assistance were developed in this project from diverse data source. Neither the rates nor the data from which the rates were calculated are available in any other single source. The data are recorded by product, which are also coded for the parent 4-digit industry. This set of data is analyzed in several papers, including HIID/ESEPP No. 14.

Under certain restrictions, researchers who have been associated with the HIID/ESEPP Project, may access these data files, by request to the HIID/ESEPP Project or Member, GED, Planning Commission.

Census of Manufacturing Industries, Bangladesh

Microdata Merge File, 1974-5--1983-4

DOCUMENTATION

of

Variable Records

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Planning Commission

HIID/ESEPP WP No. 9

Census of Manufacturing Industries, Bangladesh

Microdata Merge File, 1974-5--1983-4

DOCUMENTATION

of

Variable Records

(C) HIID, June 1988

Contains establishment data with major product and three major raw material names, variable names, variable locations, for the period from 1974-75 through 1983-84, except years 1976-77 through 1978-79. There are 30 (original + transformed) variables, including 3 price-index variables injected from outside the CMI data, 3 codes for the 3 samples, and several other codes. In addition to raw variables, several computed values are also recorded for ready manoeuverability, including 19 ratios of different costs to output value, total factor productivity, etc. There are 373 "old" estabs (each for 7 years), 1087 "new" estabs (each for a maximum of 6 years), and 136 "moribund" estabs (each for a maximum of 6 years). The first part of this write-up consists of variable locations, the second part variable definitions.

BEST AVAILABLE

```
CBL STATE,FLOW
00001   0001   ID DIVISION.
00002   0002   PROGRAM-ID.     HIDE2619.
00003   0003   DATE-WRITTEN.   15/06/80.
00004   0004   DATE-COMPILED.  16/06/80
00005   0005   REMARKS. IT ADDS GDP-DEFLATOR, PRODUCTION PRICE INDEX,
00006   0006            RAW-MATERIAL PRICE INDEX (BY TWO DIGIT MAJOR IF
00007   0007            LEVEL AND YEART TO EACH ESTABLISHMENT.
00008   0008
00009   0009   ENVIRONMENT DIVISION.
00010   0010   INPUT-OUTPUT SECTION.
00011   0011   FILE-CONTROL.
00012   0012       SELECT EON-FILE    ASSIGN TO SYS081-UT-3420-S-EON.
00013   0013       SELECT OUT-FILE    ASSIGN TO SYS080-UT-3420-S-OTFIL.
00014   0014 * INPUT FILE T-6013, OUTPUT FILE T-2116
00015   0015
00016   0016   DATA DIVISION.
00017   0017   FILE SECTION.
00018   0018   FD  EON-FILE
00019   0019       RECORDING MODE IS F
00020   0020       LABEL RECORDS ARE STANDARD
00021   0021       RECORD CONTAINS 688 CHARACTERS
00022   0022       DATA RECORD IS EON-REC.
00023   0023   01  EON-REC.
00024   0024       05  FIRST-PART.
00025   0025           10  SL-NO                          PIC 9999.
00026   0026           10  SAMPLE-TYPE                    PIC 9.
00027   0027               88  OLD                        VALUE 1.
00028   0028               88  NEW                        VALUE 2.
00029   0029               88  MORIBUND                   VALUE 3.
00030   0030           10  INDUSTRY.
00031   0031               15  IND-1                      PIC 9.
00032   0032               15  IND-2                      PIC 9.
00033   0033               15  IND-MINOR                  PIC 99.
00034   0034           10  YEAR                           PIC 99.
00035   0035           10  REST-DATA.
00036   0036               15  YEAR-NO                    PIC 99.
00037   0037               15  PRODUCT-NAME               PIC X(30).
00038   0038               15  PROD-UNIT-NAME             PIC X(7).
00039   0039               15  PROD-UNIT-PRICE-PI         PIC 9(8)V9999.
00040   0040               15  INPUT-NAME-1               PIC X(30).
00041   0041               15  INP-UNIT-NAME-1            PIC X(7).
00042   0042               15  INP-UNIT-PRICE-PR1         PIC 9(8)V9999.
00043   0043               15  INPUT-NAME-2               PIC X(30).
00044   0044               15  INP-UNIT-NAME-2            PIC X(7).
00045   0045               15  INP-UNIT-PRICE-PR2         PIC 9(8)V9999.
00046   0046               15  INPUT-NAME-3               PIC X(30).
00047   0047               15  INP-UNIT-NAME-3            PIC X(7).
00048   0048               15  INP-UNIT-PRICE-PR3         PIC 9(8)V9999.
00049   0049               15  OUTPUT-VALUE-O             PIC 9(10).
00050   0050               15  VALUE-ADDED-VA             PIC S9(9).
00051   0051               15  CAPITAL-STOCK-K            PIC 9(10).
00052   0052               15  NON-WAGES-NW               PIC 9(10).
00053   0053               15  V1                         PIC 9(5)V9999.
00054   0054               15  V2                         PIC 9(5)V9999.
00055   0055               15  V3                         PIC 9(5)V9999.
00056   0056               15  V4                         PIC 9(5)V9999.
00057   0057               15  V5                         PIC 9(5)V9999.
00058   0058               15  V6                         PIC 9(5)V9999.
00059   0059               15  V7                         PIC 9(5)V9999.
00060   0060               15  V8                         PIC 9(5)V9999.
00061   0061               15  V9                         PIC 9(5)V9999.
00062   0062               15  V10                        PIC 9(5)V9999.
00063   0063               15  V11                        PIC 9(5)V9999.
00064   0064               15  V12                        PIC 9(5)V9999.
00065   0065               15  V13                        PIC 9(5)V9999.
00066   0066               15  V14                        PIC 9(5)V9999.
00067   0067               15  V15                        PIC 9(5)V9999.
00068   0068               15  V16                        PIC 9(5)V9999.
00069   0069               15  V17                        PIC 9(5)V9999.
00070   0070               15  V18                        PIC 9(5)V9999.
00071   0071               15  V19                        PIC 9(5)V9999.
00072   0072               15  F-PRODUCTIVITY             PIC 9(5)V9999.
00073   0073               15  K-PRIME                    PIC 9(8)V9999.
00074   0074               15  O-BY-N                     PIC 9(8)V9999.
00075   0075               15  VA-BY-K-PRIME              PIC 9999V999999.
00076   0076               15  VA-BY-N                    PIC 9(5)V99.
```

BEST AVAILABLE

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00077   0077          15  K-PRIME-BY-Q                PIC 9(8)V9999.
00078   0078          15  K-PRIME-BY-N                PIC 9(9).
00079   0079          15  K-PRIME-BY-N1               PIC 9(9).
00080   0080          15  K-PRIME-BY-N2               PIC 9(9).
00081   0081          15  N2-BY-N1                    PIC 9999V9999.
00082   0082          15  TOT-EMP-N                   PIC 9(8).
00083   0083          15  OPER-EMPL-N1                PIC 9(8).
00084   0084          15  ADMN-EMPL-N2                PIC 9(8).
00085   0085          15  OTHR-EMPL-N3                PIC 9(8).
00086   0086          15  WORKING-PROP-N4             PIC 9(9).
00087   0087          15  UNPAID-HELPR-N5             PIC 9(9).
00088   0088          15  CONTRACT-LAB-N6             PIC 9(9).
00089   0089          15  OPER-WAGE-RATE-W1           PIC 9(6)V99.
00090   0090          15  ADMIN-WAGE-RATE-W2          PIC 9(6)V99.
00091   0091          15  TOT-WAGE-BILL-W             PIC 9(8).
00092   0092      10  O-OLD-DATA.
00093   0093          15  O-OLD-E                     PIC 9999.
00094   0094          15  O-OLD-Q                     PIC 9(12).
00095   0095          15  O-OLD-N                     PIC 9(12).
00096   0096      10  O-NEW-DATA.
00097   0097          15  O-NEW-E                     PIC 9999.
00098   0098          15  O-NEW-Q                     PIC 9(12).
00099   0099          15  O-NEW-N                     PIC 9(12).
00100   0100      10  O-MOR-DATA.
00101   0101          15  O-MOR-E                     PIC 9999.
00102   0102          15  O-MOR-Q                     PIC 9(12).
00103   0103          15  O-MOR-N                     PIC 9(12).
00104   0104  05  FILLER                              PIC X(5).
00105   0105
00106   0106  FD  OUT-FILE
00107   0107      RECORDING MODE IS F
00108   0108      LABEL RECORDS ARE STANDARD
00109   0109      RECORD CONTAINS 696 CHARACTERS
00110   0110      DATA RECORD IS OUT-REC.
00111   0111  01  OUT-REC.
00112   0112  05  PART-I.
00113   0113      10  SL-NO-O                         PIC 9999.
00114   0114      10  SAMPLE-TYPE-C                   PIC 9.
00115   0115          88  OLD                         VALUE 1.
00116   0116          88  NEW                         VALUE 2.
00117   0117          88  MORIBUND                    VALUE 3.
00118   0118      10  INDUSTRY-O.
00119   0119          15  O-IND-1                     PIC 9.
00120   0120          15  O-IND-2                     PIC 9.
00121   0121          15  O-IND-MINOR                 PIC 99.
00122   0122      10  YEAR-O                          PIC 99.
00123   0123      10  REST-DATA-O.
00124   0124          15  YEAR-NO-O                   PIC 99.
00125   0125          15  PRODUCT-NAME-O              PIC X(30).
00126   0126          15  PROD-UNIT-NAME-O            PIC X(7).
00127   0127          15  PROD-UNIT-PRICE-P1-O        PIC 9(8)V9999.
00128   0128          15  INPUT-NAME-1-O              PIC X(30).
00129   0129          15  INP-UNIT-NAME-1-O           PIC X(7).
00130   0130          15  INP-UNIT-PRICE-PR1-O        PIC 9(8)V9999.
00131   0131          15  INPUT-NAME-2-O              PIC X(30).
00132   0132          15  INP-UNIT-NAME-2-O           PIC X(7).
00133   0133          15  INP-UNIT-PRICE-PR2-O        PIC 9(8)V9999.
00134   0134          15  INPUT-NAME-3-O              PIC X(30).
00135   0135          15  INP-UNIT-NAME-3-O           PIC X(7).
00136   0136          15  INP-UNIT-PRICE-PR3-O        PIC 9(8)V9999.
00137   0137          15  OUTPUT-VALUE-O-O            PIC 9(10).
00138   0138          15  VALUE-ADDED-VA-O            PIC S9(9).
00139   0139          15  CAPITAL-STOCK-K-O           PIC 9(10).
00140   0140          15  NON-WAGES-NW-O              PIC 9(10).
00141   0141          15  V1-O                        PIC 9(5)V9999.
00142   0142          15  V2-O                        PIC 9(5)V9999.
00143   0143          15  V3-O                        PIC 9(5)V9999.
00144   0144          15  V4-O                        PIC 9(5)V9999.
00145   0145          15  V5-O                        PIC 9(5)V9999.
00146   0146          15  V6-O                        PIC 9(5)V9999.
00147   0147          15  V7-O                        PIC 9(5)V9999.
00148   0148          15  V8-O                        PIC 9(5)V9999.
00149   0149          15  V9-O                        PIC 9(5)V9999.
00150   0150          15  V10-O                       PIC 9(5)V9999.
00151   0151          15  V11-O                       PIC 9(5)V9999.
00152   0152          15  V12-O                       PIC 9(5)V9999.
00153   0153          15  V13-O                       PIC 9(5)V9999.
```

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00154   0154                15  V14-C                          PIC 9(5)V9999.
00155   0155                15  V15-C                          PIC 9(5)V9999.
00156   0156                15  V16-C                          PIC 9(5)V9999.
00157   0157                15  V17-C                          PIC 9(5)V9999.
00158   0158                15  V18-C                          PIC 9(5)V9999.
00159   0159                15  V19-C                          PIC 9(5)V9999.
00160   0160                15  F-PRODUCTIVITY-D               PIC 9(5)V9999.
00161   0161                15  K-PRIME-D                      PIC 9(8)V9999.
00162   0162                15  Q-BY-N-D                       PIC 9(8)V9999.
00163   0163                15  VA-BY-K-PRIME-D                PIC 9999V999999.
00164   0164                15  VA-BY-N-C                      PIC 9(5)V99.
00165   0165                15  K-PRIME-BY-Q-C                 PIC 9(8)V9999.
00166   0166                15  K-PRIME-BY-N-C                 PIC 9(9).
00167   0167                15  K-PRIME-BY-N1-D                PIC 9(9).
00168   0168                15  K-PRIME-BY-N2-D                PIC 9(9).
00169   0169                15  N2-BY-N1-D                     PIC 9999V9999.
00170   0170                15  TOT-EMP-N-D                    PIC 9(8).
00171   0171                15  OPER-EMPL-N1-D                 PIC 9(8).
00172   0172                15  ADMN-EMPL-N2-D                 PIC 9(8).
00173   0173                15  OTHR-EMPL-N3-D                 PIC 9(8).
00174   0174                15  WORKING-PROP-N4-D              PIC 9(9).
00175   0175                15  UNPAID-HELPR-N5-D              PIC 9(9).
00176   0176                15  CONTRACT-LAB-N6-D              PIC 9(9).
00177   0177                15  OPER-WAGE-RATE-W1-D            PIC 9(6)V99.
00178   0178                15  ADMIN-WAGE-RATE-W2-D           PIC 9(6)V99.
00179   0179                15  TOT-WAGE-BILL-W-C              PIC 9(8).
00180   0180            10  OUT-OLD-DATA.
00181   0181                15  O-OLD-ESTB-E                   PIC 9999.
00182   0182                15  O-OLD-OUTPUT-Q                 PIC 9(12).
00183   0183                15  O-OLD-WORKER-N                 PIC 9(12).
00184   0184            10  OUT-NEW-DATA.
00185   0185                15  O-NEW-ESTB-E                   PIC 9999.
00186   0186                15  O-NEW-OUTPUT-Q                 PIC 9(12).
00187   0187                15  O-NEW-WORKER-N                 PIC 9(12).
00188   0188            10  OUT-MOR-DATA.
00189   0189                15  O-MOR-ESTB-E                   PIC 9999.
00190   0190                15  O-MOR-OUTPUT-Q                 PIC 9(12).
00191   0191                15  O-MOR-WORKER-N                 PIC 9(12).
00192   0192        05  GDP-DEFLATOR                           PIC 9999.
00193   0193        05  PROD-P-INDEX                           PIC 9999.
00194   0194        05  RAW-MAT-P-INDEX                        PIC 9999.
00195   0195        05  FILLER                                 PIC X.
00196   0196
00197   0197    WORKING-STORAGE SECTION.
00198   0198    77  WRITE-CTR                          PIC 9(8)   VALUE ZERO.
00199   0199    77  READ-CTR                           PIC 9(8)   VALUE ZERO.
00200   0200    77  YR                                  PIC 99     VALUE ZERO.
00201   0201
00202   0202    01  GDP-INDEX-TAB.
00203   0203        05  GDP-TAB.
00204   0204        10 F PIC X(36) VALUE "015401630106016501260125016501250115".
00205   0205        10 F PIC X(36) VALUE "018002560163017601480144017002020164".
00206   0206        10 F PIC X(36) VALUE "025804570227023803150147019602460370".
00207   0207        10 F PIC X(36) VALUE "028807360273026803880168026302300318".
00208   0208        10 F PIC X(36) VALUE "030508910344030502870235027302620300".
00209   0209        10 F PIC X(36) VALUE "037612300367036003780290028501990261".
00210   0210        10 F PIC X(36) VALUE "040312690370036903900254030402600394".
00211   0211        05  GD-TAB REDEFINES  GDP-TAB.
00212   0212            10  GDTAB OCCURS 7 TIMES.
00213   0213                15  GDP-CELL OCCURS 9 TIMES PIC 9999.
00214   0214
00215   0215    01  PRO-RAW-TAB.
00216   0216        05  PRO-TAB.
00217   0217            10  FILLER    PIC X(8)   VALUE   "02400125".
00218   0218            10  FILLER    PIC X(8)   VALUE   "01850117".
00219   0219            10  FILLER    PIC X(8)   VALUE   "02950179".
00220   0220            10  FILLER    PIC X(8)   VALUE   "03260199".
00221   0221            10  FILLER    PIC X(8)   VALUE   "03670219".
00222   0222            10  FILLER    PIC X(8)   VALUE   "03850243".
00223   0223            10  FILLER    PIC X(8)   VALUE   "04490259".
00224   0224        05  PR-TAB REDEFINES  PRO-TAB.
00225   0225            10  PRTAB OCCURS 7 TIMES.
00226   0226                15  PRO-INDEX     PIC 9999.
00227   0227                15  RAW-INDEX     PIC 9999.
00228   0228
00229   0229    PROCEDURE DIVISION.
00230   0230    START-RUN.
```

```
00231   0231        OPEN INPUT EQN-FILE,
00232   0232            OUTPUT OUT-FILE.
00233   0233        MOVE SPACES TO OUT-REC.
00234   0234
00235   0235    READ-EQN.
00236   0236        READ EQN-FILE
00237   0237             AT END
00238   0238                GO TO STOP-RUN.
00239   0239        ADD 1 TO READ-CTR.
00240   0240        MOVE FIRST-PART TO PART-1.
00241   0241        IF YEAR EQUAL TO 75
00242   0242           MOVE 1 TO YR
00243   0243            GO TO MOVE-INDEX.
00244   0244        IF YEAR EQUAL TO 76
00245   0245           MOVE 2 TO YR
00246   0246            GO TO MOVE-INDEX.
00247   0247        IF YEAR EQUAL TO 80
00248   0248           MOVE 3 TO YR
00249   0249            GO TO MOVE-INDEX.
00250   0250        IF YEAR EQUAL TO 81
00251   0251           MOVE 4 TO YR
00252   0252            GO TO MOVE-INDEX.
00253   0253        IF YEAR EQUAL TO 82
00254   0254           MOVE 5 TO YR
00255   0255            GO TO MOVE-INDEX.
00256   0256        IF YEAR EQUAL TO 83
00257   0257           MOVE 6 TO YR
00258   0258            GO TO MOVE-INDEX.
00259   0259        MOVE 7 TO YR.
00260   0260
00261   0261    MOVE-INDEX.
00262   0262        MOVE GDP-CELL (YR, IND-2) TO GDP-DEFLATOR.
00263   0263        MOVE PRO-INDEX (YR)       TO PROD-P-INDEX.
00264   0264        MOVE RAW-INDEX (YR)       TO RAW-MAT-P-INDEX.
00265   0265        WRITE OUT-REC.
00266   0266        MOVE SPACES TO OUT-REC.
00267   0267        ADD 1 TO WRITE-CTR.
00268   0268        GO TO READ-EQN.
00269   0269
00270   0270    STOP-RUN.
00271   0271        CLOSE EQN-FILE, OUT-FILE.
00272   0272        DISPLAY "TOTAL-READ =  " READ-CTR.
00273   0273        DISPLAY "TOTAL-WRITE =  " WRITE-CTR.
00274   0274        STOP RUN.
```

BEST AVAILABLE

```
*STATISTICS*          SOURCE RECORDS =     274      DATA ITEMS =     197      PRO
*STATISTICS*          PARTITION SIZE = 475016       LINE COUNT =      80      BUF
*OPTIONS IN EFFECT*   PMAP ALLOC ADR =   NONE       SPACING    =       1      FLO
*OPTIONS IN EFFECT*    NOLISTX      QUOTE      NOSYM    NOCATALR        LIST
*OPTIONS IN EFFECT*    NOCLIST      FLAGW      ZWB      NOSUPMAP      NOXREF
*OPTIONS IN EFFECT*      STATE      TRUNC      STO      NOSYMDMP      NODECK
*OPTIONS IN EFFECT*    LANGLVL(2)  NOCOUNT     ADV                  NOVERBSUM
*LISTER OPTIONS*         NONE

END OF COMPILATION
```

Definitions of variables

Variable values are not deflated, but price indices for 2-digit-industry products and raw materials as well as GDP Deflator have been included in the data set for the purpose. Price indices injected in the tape are given in Table 3A.1.

Value of Output (in thousands of Takas)

Q = Q1 Q2+ Q3+ Q4, where

Q1 = Value of main product

Q2 = Value of byproduct/subsidiary product

Q3 = Value of industrial waste

Q4 = Net value from work done for others minus work done by others for the enterprise and net value of goods sold in the same condition as purchased.

P1..., P4 = Corresponding prices

Value of Inputs (in thousands of Takas)

Capital

K = L + B + M + E + F + K1 + 10U stock, where

L = Value of land, including improvements to it

B = Buildings and structure of all kind

M = Machinery and equipment other than transport

E = Transport equipment

F = Other fixed assets

U = Rent paid for assets owned by others

KM2 = Machinery and equipment imported

K1 = Spare parts: total

KM1 = Spare parts: imported

For certain adjustments to K, see transformations below.

Labor

$N = N1 + N2 + N3 + N4 + N5$, where

N1 = Production workers, mean manyears of Sept., Dec., Mar., and June

N2 = Professional, executive, managerial, technical labor, above and including supervisory staff

N3 = Other employees

N4 = Working proprietors

N5 = Unpaid workers of the family.

W = W1 + W2 + W3 + W4 + W5 Annual wage bill, including wages & salaries, cash and noncash benefits and employer-and-employee contribution to social security, etc. Male and female workers, where separately reported are aggregated together in the respective category.

W1 = Annual wage bill of N1 in thousands of Takas

W2 = Annual wage bill of N2 in thousands of Takas

W3 = Annual wage bill of N3 in thousands of Takas

W4 = Imputed yearly wage bill of N4 in thousands of Takas

W5 = Imputed yearly wage bill of N5 in thousands of Takas

w1 = W1/N1

w2 = W2/N2

w3 = W3/N3

w4 = w2

w5 = w1

fuels

FU = Value of fuels: total

FUM = Value of fuels: imported

Raw Materials and Other Costs

R = R1 + R2 + R3 + R4, aggregate (indigenous and imported) value,

R1 = Value of the consumption of major raw material

R2 = Value of the consumption of second major raw material

R3 = Value of the consumption of third major raw material

R4 = Value of the consumption of all other mateirals

RM = Value of the consumption of imported R

RM1 = Value of the consumption of imported R1

RM2 = Value of the consumption of imported R2

RM3 = Value of the consumption of imported R3

RM4 = Value of the consumption of imported R4

RI = Value of the consumption of imported R

CH = Value of chemicals consumed: total

CHM = Value of chemicals consumed: imported

PM = Value of packing material: total

PMM = Value of packing material: imported

T = Excise tax + sales tax + other taxes, as reported in CMI

S = Subsidy from government, as reported in CMI

INT = Interest paid

OTH = Other non-material costs (insurance, advertisement, etc.)

Transportations

VA = Q - (R + CH + PM + FU)

NW = VA-W

V1 = (KM1 + KM2)/K

V2 = 0.1 (KM1 + KM2)/Q

V3 = W/Q

V4 = R1/Q

V5 = RM1/Q

V6 = R2/Q

V7 = RM2/Q

V8 = R3/Q

V9 = RN3/Q

V10 = CH/Q

V11 = CHM/Q

V12 = PM/Q

V13 = PMN/Q

V14 = FU/Q

V15 = FUM/Q

V16 = T/Q

V17 = S/Q

V18 = NW/Q

V19 = INT/Q

$K'_{it} = \beta_t K_{it}$, for ith enterprise, where

$$\beta_t = \frac{2 \sum_i Q_{it}}{\sum_i K_{it}}, \text{ and}$$

$$r_{it} = \frac{(NW)_{it}}{K'_{it}}$$

where subscript t stands for time (a year). It is apparent that we made a sweeping assumption of uniform under-statement of capital stock by each of the old enterprises. The sample analyzed in the present paper consists of those enterprises that existed before 1973-74 and filled the questionnaire every year.

Capital stock in the New Enterprise Sample

This sample of the CMI consists of those enterprises which did not exist in 1974-75, but entered the industry after that year. Accordingly, for the purpose of productivity growth estimates, their capital was not assumed to depreciate during the reference period, 1975-76--1983-84. However, accretions to capital stock after the initial year of production were duly cumulated. In other words, insofar as K of an enterprise in this sample is concerned, the higher value of it throws the lower value out. When K increase we take it into account; when K is reported to decline (which will most probably be due to artificial depreciation in the enterprise accounts) we ignore it. It is apparent that for an individual enterprise, total-factor productivity (TFP) will not reflect the effect of the new vintage of machines, because the initial year of production is eliminated in the calculations of year-to-year changes. The vintage effect will, however, fully influence the TFP indices in the overall, recombined CMI.

BEST AVAILABLE

DOCUMENTATION

FOR

VARIABLE RECORDS [illegible]

TIME-SERIES DATA

1972 THROUGH 1984

ON NEW ESTABLISHMENT ENTRIES

AND EMPLOYMENT

BY 4-DIGIT INDUSTRIES

FROM THE ECONOMIC CENSUS, 1986

HID [illegible] Report No. 14, [illegible]

This is a 5-percent sample of the 1986 Economic Census. The census enumerated 1,390,494 establishments and 4,488,565 workers, of which 129,104 establishments and 1,269,782 workers were in Industry 3: manufacturing industries and 803,890 establishments and 1,814,788 workers in Industry 6: Trade and Hotels. The frequency distributions of units and workers by size-class in manufacturing industries and overall nonagricultural industries are given below:

No. of workers	Size-Class Used Here	Manufacturing		All Nonag Industries	
		Percent Units	Percent Workers	Percent Units	Percent Workers
(1)	(2)	(3)	(4)	(5)	(6)
1)		11.63	1.4	33	10.36
2)		20.15	4.1	27	16.70
3)	I	16.23	5.0	13	11.63
4)		11.08	4.5	8	9.23
5-9	II	22.00	14.3	9	16.90
10-19	III	8.55	11.4	2.62	10.60
20-49	IV	3.41	9.6	.79	6.85
50-99	V	1.13	7.6	.18	3.75
100-499	VI	1.11	41.9	.11	13.97
500 & Over	VII				
Not reported	Not reported	2.38	..	6.87	..
Total: %		100.00	100.00	100.00	100.00
No. in Census		129,104	1,269,782	1,390,994	4,488,365
Blown-up from 5% Sample of Inds. 3 and 6 analyzed here		..	..	931,366	2,992,934

Variable location

The variable location is described below:

Columns

ECC SAMPLE DATA
RECORD LAYOUT
BLOCK CONTAINS 100 RECORDS
RECORD CONTAINS 79 CHARACTERS
IBM STANDARD LABEL

FIELD DESCRIPTION	POSITION	REMARKS
YEAR	99	71 Indicates cumulated prior to 72
BSIC-CODE	9999	
RECORD-NUMBER	9	
EMPLOYMENT SIZE:		
a) 1 To 4	9(6)V99	
b) 5 To 9	"	
c) 10 To 19	"	
d) 20 To 49	"	
e) 50 To 99	"	
f) 100 To 499	"	
g) 500 +	"	
h) NOT REPORTED	"	
i) TOTAL	"	

Rows

a) Codes for 4-digit industry

b) Calendar year of the commencement of production

To give an idea to the user of the amount of data, this source has Only 3 basic variables, 4 percentages, and 2 year-to-year rates of growth, as follows:

A. Basic Data

1. Newly entering mechanized units using power

2. Newly entering total units (mechanized using power+mechanized without power+nonmechanized units)

3. Total number of workers of the units enumerated in 1986

B. Percentages

4. Variable 1 as a percentage of Variable 2

5. Row percentage of Variable 1

6. Row percentage of Variable 2

7. Row percentage of Variable 3

C. Rates of Growth

8. Year-to-year rate of expansion of establishments

9. Year-to-year rate of increase of workers (assuming the establishment started with the same number of workers as it reported in 1986).

According to the 5-percent sample used here, the number of industries formed by the units that entered since 1972 (as well the pre-1972 cumulated stock) and survived through 1986, and which were thus enumerated in the Economic Census, comes to the following:

Year	No. of 4-digit Industries
Prior to 1972	290
1972	130
1973	122
1974	113
1975	146
1976	134
1977	114
1978	143
1979	133
1980	184
1981	164
1982	178
1983	177
1984	196
1985	215
1986	215
Total Observations	2652

The BBS has warned data-users that the 5-percent sample (278,988 establishments) may not be significant by size-class at the 4-digit-industry level. The results presented in Report #17 of the HIID/ESEPP Project are subject to this qualification.

DOCUMENTATION

OF

VARIABLE RECORDS #3

TIME-SERIES MICRO DATA

1976-77 THROUGH 1985-86

ON

INVESTMENT

BY 4-DIGIT INDUSTRIES

from

THE DEPARTMENT OF INDUSTRIES DATA

HIID/ESEPP WP No. 9

February 15, 1989

Department of Industries, Bangladesh

Microdata Files, 1976-77 through 1985-86

DOCUMENTATION

of

Variable Records

(C) HIID, January 1989

DATA SOURCE: Seven volumes of unpublished enterprise data from the Department of Industries (DI), Ministry of Industry, Government of Bangladesh. The first volume includes data for the period 1976-77 through 1979-80. The remaining six volumes are annual records. They contain information for 1980-81, 1981-82, 1982-83, 1983-84, 1984-85, and 1985-86, respectively. This restricted publication includes investment information of those newly established firms that opted to register with the DI. Although only firms with total capital investment exceeding a certain minimal taka value (Taka 1.5 million for the past several years) are required to register with the DI (and consequently included in the DI files), smaller enterprises, too, seem to have found it advantageous to register with the DI. Thus, during the decade from 1976-77 through 1985-86, nearly half of the units of the lower 2 size-classes of this study, namely those with investment not exceeding Taka 1.5 million registered with the DI. Their investment comes to 3.41% of total investment of the

The coverage of DI, both for large and small firms, is several-fold of that of the CMI. As such, no other source in Bangladesh is known to offer more complete or more trustworthy data on investment.

DATA FILES: Seven data files corresponding to each of the volumes were created. They are named as follows: DI7679.DAT, DI8081.DAT, DI8182.DAT, DI8283.DAT, DI8384.DAT, DI8485.DAT, DI8586.DAT. The location of variable is described below:

Col.	Variable Code	Variable Name
1-9	X1	Identification Number of firm
10-18	X2	Industry Code (A listing is attached)
19-27	X3	Volume used (76=1976-79 data;80=1980-81 data;81=1981-82 data;and so forth)
28-36	X4	Sanctioning Authority (1=BSB,2=BSRS, 3=DI Dhaka,4=DI Outside Dhaka, 5=Commercial Bank,6=Krishi Bank, 7=Others,8=BSCIC)
37-43	X5	Month of Sanction
44-45	X6	Year of Sanction
46-54	X7	Econographic Area (0=Developed, 1=Less Dev.,2=Least Dev.,9=Not Clear)
55-63	X8	Location (0=Factory, 1=Office, 2=BSCIC estate, 9=Not Clear)
64-72	X9	Total Nominal Internal Capital Investment (in lac taka)
73-81	X10	Total Nominal External Capital Investment (in lac taka)

PROGRAM FILES: Several tabulations, programs, were also saved on diskettes. Programs corresponding to each data file include: DI7679.PR, DI8081.PR, DI8182.PR, and so forth. Variable code, variable location, variable label, value label, and code for missing values are provided in the program files. Also, formulas for transformed variables can be retrieved from the program files.

The transformed variables are:

Variable Code	Variable Definition
X11	Total Capital Investment (in lac of takas)
X13	Internal Real Capital Invest. (in 1986-87 prices)
X14	External Real Capital Invest. (in 1986-87 prices)
X15	Total Real Capital Invest. (in 1986-87 prices)

Based on Total Real Investment (X15), firms were classified into various size classes. Two sets of size classes were used for our analysis:

I. CLASS 1 X15 <= 1 lac taka

CLASS 2 1 lac taka < X15 <= 5 lac taka

CLASS 3 5 lac taka < X15 <= 10 lac taka

CLASS 4 10 lac taka < X15 <= 50 lac taka

CLASS 5 50 lac taka < X15 <= 100 lac taka

CLASS 6 100 lac taka < X15

II. CLASS 1 X15 <= 5 lac taka

CLASS 2 5 lac taka < X15 <= 15 lac taka

CLASS 3 15 lac taka < X15 <= 50 lac taka

CLASS 4 50 lac taka < X15 <= 150 lac taka

CLASS 5 150 lac taka < X15 <= 300 lac taka

CLASS 6 300 lac taka < X15

SYSTEM FILES: System files corresponding to each data file (and concurrently program file) were generated. They are labelled as DI7679.SYS, DI8081.SYS, and so forth, respectively. In addition, file DI8085.SYS includes data for the period 1980-81 through 1985-86; DI.SYS merges all data from 1976-77 to 1985-86. Each system file includes the raw data as well as the program (in a compressed form) necessary to analyze the data.

OUTPUT FILES: For statistical and econometric analysis, the software package SPSS-PC PLUS was used. All files were prepared in Word Star Professional, Release 4 format on diskettes as well as tapes. They form the data bank of the HIID/EEPA project.

22b

BANGLADESH BUREAU OF STATISTICS
DATA PROCESSING UNIT

Tape no. 3665

System: Household Expenditure Survey, 1985-86

Card/Record Type: 1 Record of persons

G. No./ S. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type Card No. on pages	1	10-10	Always 1
4.	Card Serial	2	11-12	01 for 1st record 02 for 2nd record, etc.
5.	HH Member Information-1			
	a) Member Sl. Serial no. of individ	2	13-14	Code [illegible]
	b) Relation	1	15-15	" "
	c) Sex	1	16-16	" "
	d) Age	2	17-18	" "
	e) Maritasl status	1	19-19	"
	f) Education	2	20-21	" "
	g) Main occupation	2	22-23	" "
	h) 2nd occupation	2	24-25	" "
	i) Occupation status	1	26-26	" "
	j) Earner - Non-earner	1	27-27	" "
6.	HH Member Information-2	15	28-42	Same as 5.
7.	HH Member Information-2	15	43-57	Same as 5.
8.	HH Member Information-2	15	58-72	Same as 5.
9.	Unused	8	73-80	All zeros

Information Person 1

Information Person 2

3

4

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The "Record Type" on the top of each page is described in the questionnaire.

For characteristics of persons codes are used. These codes appear on p. 2 of the questionnaire.

DOCUMENTATION

HOUSEHOLD EXPENDITURE SURVEY, 1985-86

HIID/ESEOO ORIHECT

January, 1990

BEST
AVAILABLE

HES, 1985-8_

Card/Record Type: 3: Nonfood exp.

Q. No./ S. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always '3'
4.	Card Serial	2	11-12	
5.	Purchase Information-1			
	a) Item code	3	13-15	Printed code
	b) Qty-Purchase	5	16-20	Code value
	c) Purchase value	7	21-27	" "
6.	Purchase Information-2	15	28-42	Same as S1.5
7.	Purchase Information-3	15	43-57	Same as S1.5
8.	Purchase Information-4	15	58-72	Same as S1.5
9.	Unused	8	73-80	All zeros

In this record, we move on to nonfood expenditure, which was originally collected for one month.

BEST
AVAILABLE

BEST AVAILABLE

HES, 1985-86

Card/Record Type: 2 ; Food Exp

G. No./ S. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Serial	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always 2
4.	Card Serial	2	11-12	
5.	HH Member Information-1			
	a) Item code (see in questionnaire)	3	13-15	Printed code
	b) Quantity	5	16-20	with decimal
	c) Value	6	21-26	"
	d) Proc Type Procurement mode	3	27-29	(
6.	Item Information-2	17	30-46	Same as Sl. 5
7.	Item Information-3	17	47-63	Same as Sl. 5
8.	Item Information-4	17	64-80	Same as Sl. 5

See p. 4 of questionnaire diary

This is the aggregation of daily consumption diary for one month

*Item code is the code for a consumer item. If an item has zero value it is not typed. This is mainly food. In one record (card of 80 cols) only 4 items are recorded. The rest will be in the next card.

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Card/Record Type. 5 : One yr data on production : mainly agric.

G. No./ S. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always '5'
4.	Card Serial	2	11-12	
5.	Purchase Information-1			
	a) Item code	2	13-14	Printed code
	b) Quantity	6	15-20	Code value
	c) Value	8	21-28	" "
	d) Consumed	6	29-34	" "
	e) Sold	6	35-40	" "
	f) Not sold	5	41-45	" "
6.	Purchase Information-2	33	46-78	Same as Sl. 5
7.	Unused	2	79-80	All zeros

BEST AVAILABLE

Card/Record Type: 4: Exp for 12 month period: durables

G. No./ S. No.	Field Description	No. of Characters	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always '4'
4.	Card Serial	2	11-12	
5.	Item - Information-1			
	a) Item code	2	13-14	Printed code
	b) Purchase value	8	15-22	Code value
6.	Item Information-2	10	23-32	Same as Sl. 5
7.	Item Information-3	10	33-42	Same as Sl. 5
8.	Item Information-4	10	43-52	Same as Sl. 5
9.	Item Information-5	10	53-62	Same as Sl. 5
10.	Item Information-6	10	63-72	Same as Sl. 5
11.	Unused	8	73-80	All zeros

Durables

Taxes

Rent

Edn, etc.

Only expend is given. NOT no. of items, etc.

BEST AVAILABLE

Card/Record Type: 6: Ag. Inputs

Fl. No./ Fl. No.	Field Description	No. of Characters	Columns	Remarks
1.	Hubselble Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always 6
4.	Card Serial	2	11-12	
5.	Item - Information-1			
	a) Item code	2	13-14	Printed code
	b) Purchase value	8	15-22	Code value
6.	Item Information-2	10	23-32	Same as Fl. 5
7.	Item Information-3	10	33-42	Same as Fl. 5
8.	Item Information-4	10	43-52	Same as Fl. 5
9.	Item Information-5	10	53-62	Same as Fl. 5
10.	Item Information-6	10	63-72	Same as Fl. 5
11.	Unused	8	73-80	All zeros

HES, 1985-86

Card/Record Type: 7 : Income, annual

G. No./ S. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
3.	Record Type	1	10-10	Always '7'
4.	Card Serial	2	11-12	
5.	Income Information-1			
	a) Source code	2	13-14	Printed code
	b) Head income	8	15-22	Code value
	c) Total income	8	23-30	" "
6.	Income Information-2	18	31-48	Same as Sl. 5
7.	Income Information-3	18	49-66	Same as Sl. 5
8.	Unused	14	67-80	All zeros

HES, 1985-86

Card/Record Type: 8 : Total expend, annual, summary sheet

G. No./ M. No.	Field Description	No. of Character	Columns	Remarks
1.	Household Number	4	1 - 4	
2.	Unused	5	5 - 9	All zeros
a 3.	Record Type	1	10-10	Always '8'
4.	Card Serial	2	11-12	
5.	Item - Information-1			
	a) Item code	2	13-14	Printed code
	b) Purchase value	8	15-22	Code value
6.	Item Information-2	10	23-32	Same as Sl. 5
7.	Item Information-3	10	33-42	Same as Sl. 5
8.	Item Information-4	10	43-52	Same as Sl. 5
9.	Item Information-5	10	53-62	Same as Sl. 5
10.	Item Information-6	10	63-72	Same as Sl. 5
11.	Unused	8	73-80	All zeros

Tape Specification:

Record length - 80, Record format - F
1600 BPI, 9 track, Blocking Factor - 40
IBM Standard labelled

Tape no. 3665

Two places after decimal used. Since decimal is not punched, one has to put it by command. In other cases also two decimal places, e.g., quantity, etc.

a. There are 8 record types

DOCUMENTATION

CMI UPDATED TO 1985-86

MASTER TAPE

HIID/ESEPP PROJECT

January 1990

CMI Master Tape Dec 21, 1989

```
00001  IDENTIFICATION DIVISION.
00002  PROGRAM-ID.      HIDE37.
00003  DATE-WRITTEN.    26/11/89.
00004  REMARKS.         ONE INPUT HAVING EOV AND THE OTHER HAVING OTHER
00005                   RATIOS. OUTPUT IS A MERGED FILE (MOR).
00006  ENVIRONMENT DIVISION.
00007  INPUT-OUTPUT SECTION.
00008  FILE-CONTROL.
00009      SELECT EOV-FILE    ASSIGN TO UT-3370-S-TAPIN.
00010      SELECT RATIO-FILE  ASSIGN TO UT-3370-S-RATIO.
00011      SELECT OUT-FILE    ASSIGN TO UT-3370-S-TAPOT.
00012  DATA DIVISION.
00013  FILE SECTION.
00014  FD   EOV-FILE
00015       RECORDING MODE IS F
00016       LABEL RECORDS ARE STANDARD
00017       RECORD CONTAINS 224 CHARACTERS.
00018  01   EOV-REC.
00019       05  EOV-IND                          PIC 9999.
00020       05  TCT-ESTB                         PIC 9999.
00021       05  GROUP-EOV  OCCURS 9 TIMES.
00022           10  TCT-OUTPUT                   PIC 9(12).
00023           10  TCT-EMPL                     PIC 9(12).
00024  FD   RATIO-FILE
00025       RECORDING MODE IS F
00026       LABEL RECORDS ARE STANDARD
00027       RECORD CONTAINS 680 CHARACTERS.
00028  01   RATIO-REC.
00029       05  RATIO-ESTB                       PIC 9999.
00030       05  SAMPLE-TYPE                      PIC 9.
00031           88  OLD-IND            VALUE 1.
00032           88  NEW-IND            VALUE 2.
00033           88  MOR-IND            VALUE 3.
00034       05  INDUSTRY-CODE.
00035           10  MAJOR-IND1                   PIC 9.
00036           10  MAJOR-IND2                   PIC 9.
00037           10  MINOR-IND                    PIC 99.
00038       05  YEAR-VALUE                       PIC 99.
00039           88  YEAR-CODE          VALUE 75 76 80  THRU  86.
00040       05  YEAR-NO                          PIC 99.
00041           88  YEAR-NO-VALUE      VALUE 01 THRU 09.
00042       05  OWNERSHIP-CODE                   PIC 9.
00043           88  GOVERNMENT         VALUE 1.
00044           88  PRIVATE            VALUE 2.
00045           88  JOINT-VENTURE      VALUE 3.
00046       05  PROD-CODE                        PIC 9(5).
00047       05  PROD-NAME                        PIC X(30).
00048       05  PROD-UNIT-CODE                   PIC 99.
00049       05  PROD-UNIT-NAME                   PIC X(7).
00050       05  PROD-UNIT-PRICE-P1               PIC 9(8)V9999.
00051       05  INP-CODE-1                       PIC 9(5).
00052       05  INP-NAME-1                       PIC X(30).
00053       05  INP-UNIT-CODE-1                  PIC 99.
00054       05  INP-UNIT-NAME-1                  PIC X(7).
00055       05  INP-UNIT-PRICE-PP1               PIC 9(8)V9999.
00056       05  INP-CODE-2                       PIC X(5).
00057       05  INP-NAME-2                       PIC X(30).
00058       05  INP-UNIT-CODE-2                  PIC 99.
00059       05  INP-UNIT-NAME-2                  PIC X(7).
00060       05  INP-UNIT-PRICE-PR2               PIC 9(8)V9999.
00061       05  INP-CODE-3                       PIC X(5).
00062       05  INP-NAME-3                       PIC X(30).
00063       05  INP-UNIT-CODE-3                  PIC 99.
00064       05  INP-UNIT-NAME-3                  PIC X(7).
00065       05  INP-UNIT-PRICE-PR3               PIC 9(8)V9999.
00066       05  OUTPUT-VALUE-Q                   PIC 9(10).
00067       05  VALUE-ADDED-VA                   PIC S9(9).
00068       05  CAPITAL-STOCK-K                  PIC 9(10).
00069       05  NON-WAGES-WN                     PIC 9(10).
00070       05  V1                               PIC 9(5)V9999.
00071       05  V2                               PIC 9(5)V9999.
00072       05  V3                               PIC 9(5)V9999.
00073       05  V4                               PIC 9(5)V9999.
00074       05  V5                               PIC 9(5)V9999.
00075       05  V6                               PIC 9(5)V9999.
00076       05  V7                               PIC 9(5)V9999.
00077       05  V8                               PIC 9(5)V9999.
00078       05  V9                               PIC 9(5)V9999.
00079       05  V10                              PIC 9(5)V9999.
00080       05  V11                              PIC 9(5)V9999.
```

BEST AVAILABLE

```
00081        05  V12                                  PIC 9(5)V9999.
00082        05  V13                                  PIC 9(5)V9999.
00083        05  V14                                  PIC 9(5)V9999.
00084        05  V15                                  PIC 9(5)V9999.
00085        05  V16                                  PIC 9(5)V9999.
00086        05  V17                                  PIC 9(5)V9999.
00087        05  V18                                  PIC 9(5)V9999.
00088        05  V19                                  PIC 9(5)V9999.
00089        05  F-PRODUCTIVITY                       PIC 9(5)V9999.
00090        05  K-PRIME                              PIC 9(8)V9999.
00091        05  Q-BY-N                               PIC 9(8)V9999.
00092        05  VA-BY-K-PRIME                        PIC 9999V999999.
00093        05  VA-BY-N                              PIC 9(5)V99.
00094        05  K-PRIME-BY-Q                         PIC 9(8)V9999.
00095        05  K-PRIME-BY-N                         PIC 9(8)V9999.
00096        05  K-PRIME-BY-N1                        PIC 9(8)V9999.
00097        05  K-PRIME-BY-N2                        PIC 9(8)V9999.
00098        05  N2-BY-N1                             PIC 9999V9999.
00099        05  TOT-EMP-N                            PIC 9(8).
00100        05  OPER-EMPL-N1                         PIC 9(8).
00101        05  ADMN-EMPL-N2                         PIC 9(8).
00102        05  OTHR-EMPL-N3                         PIC 9(8).
00103        05  WORKING-PROP-N4                      PIC 9(9).
00104        05  UNPAID-HELPR-N5                      PIC 9(9).
00105        05  CONTRACT-LAB-N6                      PIC 9(9).
00106        05  OPER-WAGE-RATE-W1                    PIC 9(6)V99.
00107        05  ADMN-WAGE-RATE-W2                    PIC 9(6)V99.
00108        05  TOT-WAGE-BILL-W                      PIC 9(8).
00109        05  ECN-DATA.
00110            10  ESTB-E                           PIC 9999.
00111            10  OUTPUT-Q                         PIC 9(12).
00112            10  WORKER-N                         PIC 9(12).
00113        05  GDP-DEFLATOR                         PIC 9999.
00114        05  PROD-PRICE-INDEX                     PIC 9999.
00115        05  RAW-MAT-PRICE-INDEX                  PIC 9999.
00116        05  FILLER                               PIC XXX.
00117   FD   OUT-FILE
00118        RECORDING MODE IS F
00119        LABEL RECORDS ARE STANDARD
00120        RECORD CONTAINS 680 CHARACTERS.
00121   01   OUT-REC                                  PIC X(680).
00122   WORKING-STORAGE SECTION.
00123   77   ECN-READ                                 PIC 9999      VALUE  0.
00124   77   RATIO-READ                               PIC 9999      VALUE  0.
00125   77   WRITE-CTR                                PIC 9(8)      VALUE  0.
00126   PROCEDURE DIVISION.
00127   START-RUN.
00128        OPEN INPUT ECN-FILE, RATIO-FILE
00129             OUTPUT OUT-FILE.
00130        MOVE SPACES TO OUT-REC.
00131   READ-ECN-FILE.
00132        READ ECN-FILE
00133             AT END
00134                GO TO STOP-RUN.
00135        ADD  1  TO  ECN-READ.
00136   READ-RATIO-FILE.
00137        READ RATIO-FILE
00138             AT END
00139                GO TO STOP-RUN.
00140        ADD 1 TO RATIO-READ.
00141   COMPARE-ESTB.
00142        IF ECN-IND EQUAL TO INDUSTRY-CODE
00143           GO  TO  MOVE-ECN.
00144        READ ECN-FILE
00145             AT END
00146                GO  TO  STOP-RUN.
00147        ADD  1  TO  ECN-READ.
00148         GO  TO  COMPARE-ESTB.
00149   MOVE-ECN.
00150        MOVE TOT-ESTB   TO  ESTB-E.
00151        IF YEAR-VALUE EQUAL TO 75
00152           MOVE TOT-OUTPUT (1)  TO  OUTPUT-Q
00153           MOVE TOT-EMPL   (1)  TO  WORKER-N
00154             GO  TO  WRITE-OUT-REC.
00155        IF YEAR-VALUE EQUAL TO 76
00156           MOVE TOT-OUTPUT (2)  TO  OUTPUT-Q
00157           MOVE TOT-EMPL   (2)  TO  WORKER-N
00158             GO  TO  WRITE-OUT-REC.
00159        IF YEAR-VALUE EQUAL TO 80
00160           MOVE TOT-OUTPUT (3)  TO  OUTPUT-Q
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00161          MOVE TCT-EMPL    (3)  TO  WORKER-N
00162            GO  TO  WRITE-OUT-REC.
00163       IF YEAR-VALUE EQUAL TO 81
00164          MOVE TCT-OUTPUT (4)  TO  OUTPUT-Q
00165          MOVE TCT-EMPL   (4)  TO  WORKER-N
00166            GO  TO  WRITE-OUT-REC.
00167       IF YEAR-VALUE EQUAL TO 82
00168          MOVE TCT-OUTPUT (5)  TO  OUTPUT-Q
00169          MOVE TCT-EMPL   (5)  TO  WORKER-N
00170            GO  TO  WRITE-OUT-REC.
00171       IF YEAR-VALUE EQUAL TO 83
00172          MOVE TCT-OUTPUT (6)  TO  OUTPUT-Q
00173          MOVE TCT-EMPL   (6)  TO  WORKER-N
00174            GO  TO  WRITE-OUT-REC.
00175       IF YEAR-VALUE EQUAL TO 84
00176          MOVE TCT-OUTPUT (7)  TO  OUTPUT-Q
00177          MOVE TCT-EMPL   (7)  TO  WORKER-N
00178       ELSE
00179          MOVE TCT-OUTPUT (8)  TO  OUTPUT-Q
00180          MOVE TCT-EMPL   (8)  TO  WORKER-N.
00181  WRITE-OUT-REC.
00182       MOVE RATIO-REC  TO  OUT-REC.
00183       WRITE OUT-REC.
00184       MOVE SPACES TO OUT-REC.
00185       ADD 1 TO WRITE-CTR.
00186         GO  TO  READ-RATIO-FILE.
00187  STOP-RUN.
00188       DISPLAY " EQN READ = " EQN-READ.
00189       DISPLAY " RATIO READ = " RATIO-READ.
00190       DISPLAY " RECORD WRITTEN = " WRITE-CTR.
00191       CLOSE EQN-FILE, RATIO-FILE, OUT-FILE.
00192           STOP RUN.
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CMI Master Tape Dec 21, 1989

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00001   IDENTIFICATION DIVISION.
00002   PROGRAM-ID.     HIDE27.
00003   DATE-WRITTEN.   26/11/89.
00004   REMARKS.        ONE INPUT HAVING EQN AND THE OTHER HAVING OTHER
00005                   RATIOS. OUTPUT IS A MERGED FILE (MOF).
00006   ENVIRONMENT DIVISION.
00007   INPUT-OUTPUT SECTION.
00008   FILE-CONTROL.
00009       SELECT EQN-FILE    ASSIGN TO UT-3370-S-TAPIN.
00010       SELECT RATIO-FILE  ASSIGN TO UT-3370-S-RATIO.
00011       SELECT OUT-FILE    ASSIGN TO UT-3370-S-TAPOT.
00012   DATA DIVISION.
00013   FILE SECTION.
00014   FD  EQN-FILE
00015       RECORDING MODE IS F
00016       LABEL RECORDS ARE STANDARD
00017       RECORD CONTAINS 224 CHARACTERS.
00018   01  EQN-REC.
00019       05  EQN-IND                                PIC 9999.
00020       05  TOT-ESTB                               PIC 9999.
00021       05  GROUP-EQN  OCCURS 9 TIMES.
00022           10  TOT-OUTPUT                         PIC 9(12).
00023           10  TOT-EMPL                           PIC 9(12).
00024   FD  RATIO-FILE
00025       RECORDING MODE IS F
00026       LABEL RECORDS ARE STANDARD
00027       RECORD CONTAINS 680 CHARACTERS.
00028   01  RATIO-REC.
00029       05  RATIO-ESTB                                 PIC 9999.
00030       05  SAMPLE-TYPE                            PIC 9.
00031           88  OLD-IND                VALUE 1.
00032           88  NEW-IND                VALUE 2.
00033           88  MGR-IND                VALUE 3.
00034       05  INDUSTRY-CODE.
00035           10  MAJOR-IND1                         PIC 9.
00036           10  MAJOR-IND2                         PIC 9.
00037           10  MINOR-IND                          PIC 99.
00038       05  YEAR-VALUE                             PIC 99.
00039           88  YEAR-CODE              VALUE 75 76 80  THRU  86.
00040       05  YEAR-NO                                PIC 99.
00041           88  YEAR-NO-VALUE          VALUE 01 THRU 09.
00042       05  OWNERSHIP-CODE                         PIC 9.
00043           88  GOVERNMENT             VALUE 1.
00044           88  PRIVATE                VALUE 2.
00045           88  JOINT-VENTURE          VALUE 3.
00046       05  PROD-CODE                              PIC 9(5).
00047       05  PROD-NAME                              PIC X(30).
00048       05  PROD-UNIT-CODE                         PIC 99.
00049       05  PROD-UNIT-NAME                         PIC X(7).
00050       05  PROD-UNIT-PRICE-P1                     PIC 9(8)V9999.
00051       05  INP-CODE-1                             PIC 9(5).
00052       05  INP-NAME-1                             PIC X(30).
00053       05  INP-UNIT-CODE-1                        PIC 99.
00054       05  INP-UNIT-NAME-1                        PIC X(7).
00055       05  INP-UNIT-PRICE-PP1                     PIC 9(8)V9999.
00056       05  INP-CODE-2                             PIC X(5).
00057       05  INP-NAME-2                             PIC X(30).
00058       05  INP-UNIT-CODE-2                        PIC 99.
00059       05  INP-UNIT-NAME-2                        PIC X(7).
00060       05  INP-UNIT-PRICE-PR2                     PIC 9(8)V9999.
00061       05  INP-CODE-3                             PIC X(5).
00062       05  INP-NAME-3                             PIC X(30).
00063       05  INP-UNIT-CODE-3                        PIC 99.
00064       05  INP-UNIT-NAME-3                        PIC X(7).
00065       05  INP-UNIT-PRICE-PR3                     PIC 9(8)V9999.
00066       05  OUTPUT-VALUE-Q                         PIC 9(10).
00067       05  VALUE-ADDED-VA                         PIC S9(9).
00068       05  CAPITAL-STOCK-K                        PIC 9(10).
00069       05  NON-WAGES-NW                           PIC 9(10).
00070       05  V1                                     PIC 9(5)V9999.
00071       05  V2                                     PIC 9(5)V9999.
00072       05  V3                                     PIC 9(5)V9999.
00073       05  V4                                     PIC 9(5)V9999.
00074       05  V5                                     PIC 9(5)V9999.
00075       05  V6                                     PIC 9(5)V9999.
00076       05  V7                                     PIC 9(5)V9999.
00077       05  V8                                     PIC 9(5)V9999.
00078       05  V9                                     PIC 9(5)V9999.
00079       05  V10                                    PIC 9(5)V9999.
00080       05  V11                                    PIC 9(5)V9999.
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00081        05  V12                                  PIC 9(5)V9999.
00082        05  V13                                  PIC 9(5)V9999.
00083        05  V14                                  PIC 9(5)V9999.
00084        05  V15                                  PIC 9(5)V9999.
00085        05  V16                                  PIC 9(5)V9999.
00086        05  V17                                  PIC 9(5)V9999.
00087        05  V18                                  PIC 9(5)V9999.
00088        05  V19                                  PIC 9(5)V9999.
00089        05  F-PRODUCTIVITY                       PIC 9(5)V9999.
00090        05  K-PRIME                              PIC 9(8)V9999.
00091        05  Q-BY-N                               PIC 9(8)V9999.
00092        05  VA-BY-K-PRIME                        PIC 9999V999999.
00093        05  VA-BY-N                              PIC 9(5)V99.
00094        05  K-PRIME-BY-Q                         PIC 9(8)V9999.
00095        05  K-PRIME-BY-N                         PIC 9(8)V9999.
00096        05  K-PRIME-BY-N1                        PIC 9(8)V9999.
00097        05  K-PRIME-BY-N2                        PIC 9(8)V9999.
00098        05  N2-BY-N1                             PIC 9999V9999.
00099        05  TOT-EMP-N                            PIC 9(8).
00100        05  OPER-EMPL-N1                         PIC 9(8).
00101        05  ADMN-EMPL-N2                         PIC 9(8).
00102        05  OTHR-EMPL-N3                         PIC 9(8).
00103        05  WORKING-PROP-N4                      PIC 9(9).
00104        05  UNPAID-HELPR-N5                      PIC 9(9).
00105        05  CONTRACT-LAB-N6                      PIC 9(9).
00106        05  OPER-WAGE-RATE-W1                    PIC 9(6)V99.
00107        05  ADMN-WAGE-RATE-W2                    PIC 9(6)V99.
00108        05  TOT-WAGE-BILL-W                      PIC 9(8).
00109        05  EQN-DATA.
00110            10  ESTB-E                           PIC 9999.
00111            10  OUTPUT-Q                         PIC 9(12).
00112            10  WORKER-N                         PIC 9(12).
00113        05  GDP-DEFLATOR                         PIC 9999.
00114        05  PROD-PRICE-INDEX                     PIC 9999.
00115        05  RAW-MAT-PRICE-INDEX                  PIC 9999.
00116        05  FILLER                               PIC XXX.
00117   FD   OUT-FILE
00118        RECORDING MODE IS F
00119        LABEL RECORDS ARE STANDARD
00120        RECORD CONTAINS 680 CHARACTERS.
00121   01   OUT-REC                                  PIC X(680).
00122   WORKING-STORAGE SECTION.
00123   77   EQN-READ                                 PIC 9999        VALUE  0.
00124   77   RATIO-READ                               PIC 9999        VALUE  0.
00125   77   WRITE-CTR                                PIC 9(8)        VALUE  0.
00126   PROCEDURE DIVISION.
00127   START-RUN.
00128        OPEN INPUT EQN-FILE, RATIO-FILE
00129             OUTPUT OUT-FILE.
00130        MOVE SPACES TO OUT-REC.
00131   READ-EQN-FILE.
00132        READ EQN-FILE
00133             AT END
00134                GO TO STOP-RUN.
00135        ADD  1  TO  EQN-READ.
00136   READ-RATIO-FILE.
00137        READ RATIO-FILE
00138             AT END
00139                GO TO STOP-RUN.
00140        ADD 1 TO RATIO-READ.
00141   COMPARE-ESTB.
00142        IF EQN-IND EQUAL TO INDUSTRY-CODE
00143           GO  TO  MOVE-EQN.
00144        READ EQN-FILE
00145             AT END
00146                GO  TO  STOP-RUN.
00147        ADD  1  TO  EQN-READ.
00148         GO  TO  COMPARE-ESTB.
00149   MOVE-EQN.
00150        MOVE TOT-ESTB   TO  ESTB-E.
00151        IF YEAR-VALUE EQUAL TO 75
00152           MOVE TOT-OUTPUT (1)  TO  OUTPUT-Q
00153           MOVE TOT-EMPL    (1)  TO  WORKER-N
00154             GO  TO  WRITE-OUT-REC.
00155        IF YEAR-VALUE EQUAL TO 76
00156           MOVE TOT-OUTPUT (2)  TO  OUTPUT-Q
00157           MOVE TOT-EMPL    (2)  TO  WORKER-N
00158             GO  TO  WRITE-OUT-REC.
00159        IF YEAR-VALUE EQUAL TO 80
00160           MOVE TOT-OUTPUT (3)  TO  OUTPUT-Q
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35

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00161          MOVE TOT-EMPL    (3)  TO  WORKER-N
00162            GO  TO  WRITE-OUT-REC.
00163       IF YEAR-VALUE EQUAL TO 81
00164          MOVE TOT-OUTPUT (4)  TO  OUTPUT-Q
00165          MOVE TOT-EMPL   (4)  TO  WORKER-N
00166            GO  TO  WRITE-OUT-REC.
00167       IF YEAR-VALUE EQUAL TO 82
00168          MOVE TOT-OUTPUT (5)  TO  OUTPUT-Q
00169          MOVE TOT-EMPL   (5)  TO  WORKER-N
00170            GO  TO  WRITE-OUT-REC.
00171       IF YEAR-VALUE EQUAL TO 83
00172          MOVE TOT-OUTPUT (6)  TO  OUTPUT-Q
00173          MOVE TOT-EMPL   (6)  TO  WORKER-N
00174            GO  TO  WRITE-OUT-REC.
00175       IF YEAR-VALUE EQUAL TO 84
00176          MOVE TOT-OUTPUT (7)  TO  OUTPUT-Q
00177          MOVE TOT-EMPL   (7)  TO  WORKER-N
00178       ELSE
00179          MOVE TOT-OUTPUT (8)  TO  OUTPUT-Q
00180          MOVE TOT-EMPL   (8)  TO  WORKER-N.
00181   WRITE-OUT-REC.
00182       MOVE RATIO-REC  TO  OUT-REC.
00183       WRITE OUT-REC.
00184       MOVE SPACES TO OUT-REC.
00185       ADD 1 TO WRITE-CTR.
00186         GO  TO  READ-RATIO-FILE.
00187   STOP-RUN.
00188       DISPLAY " EQN READ = " EQN-READ.
00189       DISPLAY " RATIO READ = " RATIO-READ.
00190       DISPLAY " RECORD WRITTEN = " WRITE-CTR.
00191       CLOSE EQN-FILE, RATIO-FILE, OUT-FILE.
00192           STOP RUN.
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DOCUMENTATION

CMI UPDATED TO 1985-86

SUMMARY TAPE

HIID/ESEPP PROJECT

January 1990

36a

CMI: Summary File Dec. 21, 1989

See CUT-FILE on p. 4 (p. 40)

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00001  IDENTIFICATION DIVISION.                                          HI
00002  PROGRAM-ID.     HIDE71.                                           HI
00003  DATE-WRITTEN.   14/12/89.                                         HI
00004  REMARKS.        CREATES TAPE HAVING DEFLATED OUTPUT, RAW MATERIAL,HI
00005                  CATEGORY WISE NO. OF WORKERS.                     HI
00006  ENVIRONMENT DIVISION.                                             HI
00007  INPUT-OUTPUT SECTION.                                             HI
00008  FILE-CONTROL.                                                     HI
00009      SELECT CMI-FILE   ASSIGN TO UT-3370-S-TAPIN.                  HI
00010      SELECT OUT-FILE   ASSIGN TO UT-3370-S-TAPOT.                  HI
00011  DATA DIVISION.                                                    HI
00012  FILE SECTION.                                                     HI
00013  FD  CMI-FILE                                                      HI
00014      RECORDING MODE IS F                                           HI
00015      LABEL RECORDS ARE STANDARD                                    HI
00016 *    BLOCK CONTAINS 15 RECORDS                                     HI
00017      RECORD CONTAINS 2030 CHARACTERS.                              HI
00018  01  CMI-REC.                                                      HI
00019      05  IN-IDENTIFICATION.                                        HI
00020          10  INDUSTRY                      PIC 9999.              HI
00021          10  ESTABLISHMENT                 PIC 9999.              HI
00022          10  STATAS                        PIC 9.                 HI
00023          10  LOCATION                      PIC 99.                HI
00024          10  OPERATION                     PIC 9.                 HI
00025          10  OWNERSHIP                     PIC 9.                 HI
00026          10  ORGANISATION-1                PIC 99.                HI
00027          10  POWER                         PIC 9.                 HI
00028          10  FIXED-ASSETS                  PIC 99.                HI
00029          10  EMPLYMENT-SIZE                PIC 99.                HI
00030          10  EMPLYERS-CONTRIB              PIC 9(7).              HI
00031          10  SHIFT-TOTAL                   PIC 9999.              HI
00032          10  YEAR                          PIC 99.                HI
00033      05  LAND.                                                     HI
00034          10  LAND-OPEN-VAL                 PIC 9(9).              HI
00035          10  LAND-ADDITION                 PIC 9(9).              HI
00036          10  LAND-SOLD                     PIC 9(9).              HI
00037          10  LAND-CLOSE-VAL                PIC 9(9).              HI
00038          10  LAND-RENT                     PIC 9(9).              HI
00039      05  RESIDENT-BUILDING.                                        HI
00040          10  RES-BLD-OPEN-VAL              PIC 9(9).              HI
00041          10  RES-BLD-ADD.                                          HI
00042              15  RB-BUY-NEW-FORGN          PIC 9(9).              HI
00043              15  RB-ONLY-FORGN             PIC 9(9).              HI
00044              15  RB-BUY-OLD                PIC 9(9).              HI
00045              15  RB-OWN-CONST              PIC 9(9).              HI
00046          10  RES-BLD-SOLD                  PIC 9(9).              HI
00047          10  RES-BLD-DEPRIC                PIC 9(9).              HI
00048          10  RES-BLD-CLOSE-VAL             PIC 9(9).              HI
00049          10  RES-BLD-RENT                  PIC 9(9).              HI
00050      05  NON-RES-BUILDING.                                         HI
00051          10  NON-RES-OPEN-VAL              PIC 9(9).              HI
00052          10  NON-RES-ADDITION.                                     HI
00053              15  NB-BUY-NEW-FORGN          PIC 9(9).              HI
00054              15  NB-ONLY-FORGN             PIC 9(9).              HI
00055              15  NB-BUY-OLD                PIC 9(9).              HI
00056              15  NB-OWN-COST               PIC 9(9).              HI
00057          10  NON-RES-SOLD                  PIC 9(9).              HI
00058          10  NON-RES-DEPRIC                PIC 9(9).              HI
00059          10  NON-RES-CLOSE-VAL             PIC 9(9).              HI
00060          10  NON-RES-RENT                  PIC 9(9).              HI
00061      05  OTHER-CONSTRUCTION.                                       HI
00062          10  OT-CON-OPEN-VAL               PIC 9(9).              HI
00063          10  OT-CON-ADDITION.                                      HI
00064              15  OT-BUY-NEW-FORGN          PIC 9(9).              HI
00065              15  OT-ONLY-FORGN             PIC 9(9).              HI
00066              15  OT-BUY-OLD                PIC 9(9).              HI
00067              15  OT-OWN-COST               PIC 9(9).              HI
00068          10  OT-CON-SOLD                   PIC 9(9).              HI
00069          10  OT-CON-DEPRIC                 PIC 9(9).              HI
00070          10  OT-CON-CLOSE-VAL              PIC 9(9).              HI
00071          10  OT-CON-RENT                   PIC 9(9).              HI
00072      05  PLANT-MACHNERY.                                           HI
00073          10  PLANT-OPEN-VAL                PIC 9(9).              HI
00074          10  PLANT-ADDITION.                                       HI
00075              15  PM-BUY-NEW-FORGN          PIC 9(9).              HI
00076              15  PM-ONLY-FORGN             PIC 9(9).              HI
00077              15  PM-BUY-OLD                PIC 9(9).              HI
00078              15  PM-OWN-COST               PIC 9(9).              HI
00079          10  PLANT-SOLD                    PIC 9(9).              HI
00080          10  PLANT-DEPRIC                  PIC 9(9).              HI
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DOCUMENTATION

CMI UPDATED TO 1985-86

SUMMARY TAPE

HIID/ESEPP PROJECT

January 1990

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00081          10  PLANT-CLOSE-VAL              PIC 9(9).
00082          10  PLANT-RENT                   PIC 9(9).
00083     05  TRANSPORT-EQUIPMENT.
00084          10  TRANS-OPEN-VAL               PIC 9(9).
00085          10  TRANS-ADDITION.
00086              15  TE-BUY-NEW-FORGN         PIC 9(9).
00087              15  TE-ONLY-FORGN            PIC 9(9).
00088              15  TE-BUY-OLD               PIC 9(9).
00089              15  TE-OWN-COST              PIC 9(9).
00090          10  TRANS-SOLD                   PIC 9(9).
00091          10  TRANS-DEPRIC                 PIC 9(9).
00092          10  TRANS-CLOSE-VAL              PIC 9(9).
00093          10  TRANS-RENT                   PIC 9(9).
00094     05  OTHER-FIXED-ASSET.
00095          10  FIXED-OPEN-VAL               PIC 9(9).
00096          10  FIXED-ADDITION.
00097              15  FX-BUY-NEW-FORGN         PIC 9(9).
00098              15  FX-ONLY-FORGN            PIC 9(9).
00099              15  FX-BUY-OLD               PIC 9(9).
00100              15  FX-OWN-COST              PIC 9(9).
00101          10  FIXED-SOLD                   PIC 9(9).
00102          10  FIXED-DEPRIC                 PIC 9(9).
00103          10  FIXED-CLOSE-VAL              PIC 9(9).
00104          10  FIXED-RENT                   PIC 9(9).
00105     05  POWER-CAPACITY.
00106          10  NO-PRIME-MOVER               PIC 9(9).
00107          10  CAPACITY-OF-MOVER            PIC 9(9).
00108          10  NO-OF-MOTOR                  PIC 9(9).
00109          10  CAPACITY-OF-MOTOR            PIC 9(9).
00110          10  NO-OF-GENERATOR              PIC 9(9).
00111          10  CAPACITY-OF-GENER            PIC 9(9).
00112     05  INVENTORY-POSITION.
00113          10  OP-RAW-MAT                   PIC 9(9).
00114          10  CL-RAW-MAT                   PIC 9(9).
00115          10  OP-CHEMICAL                  PIC 9(9).
00116          10  CL-CHEMICAL                  PIC 9(9).
00117          10  OP-PACK-MAT                  PIC 9(9).
00118          10  CL-PACK-MAT                  PIC 9(9).
00119          10  OP-SPARE-PART                PIC 9(9).
00120          10  CL-SPARE-PART                PIC 9(9).
00121          10  OP-OTHER-SUPPLY              PIC 9(9).
00122          10  CL-OTHER-SUPPLY              PIC 9(9).
00123          10  OP-FUELS                     PIC 9(9).
00124          10  CL-FUELS                     PIC 9(9).
00125          10  OP-WK-IN-PROCESS             PIC 9(9).
00126          10  CL-WK-IN-PROCESS             PIC 9(9).
00127          10  OP-FIN-GOODS                 PIC 9(9).
00128          10  CL-FIN-GOODS                 PIC 9(9).
00129          10  OP-BY-PROD                   PIC 9(9).
00130          10  CL-BY-PROD                   PIC 9(9).
00131          10  OP-IND-WASTE                 PIC 9(9).
00132          10  CL-IND-WASTE                 PIC 9(9).
00133          10  OP-CASH                      PIC 9(9).
00134          10  CL-CASH                      PIC 9(9).
00135          10  OP-AC-RECEIVEABLE            PIC 9(9).
00136          10  CL-AC-RECEIVEABLE            PIC 9(9).
00137          10  OP-AC-PAYABLE                PIC 9(9).
00138          10  CL-AC-PAYABLE                PIC 9(9).
00139     05  OPERATIVE-WORKER.
00140          10  OP-MAN-DAYS                  PIC 9(9).
00141          10  OP-WOMAN-DAYS                PIC 9(9).
00142          10  OP-AV-MALE-EMPL              PIC 9(9).
00143          10  OP-AV-FEM-EMPL               PIC 9(9).
00144          10  OP-MALE-WAGES                PIC 9(9).
00145          10  OP-FEM-WAGES                 PIC 9(9).
00146          10  OP-MALE-CASH-PAY             PIC 9(9).
00147          10  OP-FEM-CASH-PAY              PIC 9(9).
00148          10  OP-MALE-NON-CASH             PIC 9(9).
00149          10  OP-FEM-NON-CASH              PIC 9(9).
00150     05  ADMIN-WORKER.
00151          10  AD-MAN-DAYS                  PIC 9(9).
00152          10  AD-WOMAN-DAYS                PIC 9(9).
00153          10  AD-AV-MALE-EMPL              PIC 9(9).
00154          10  AD-AV-FEM-EMPL               PIC 9(9).
00155          10  AD-MALE-WAGES                PIC 9(9).
00156          10  AD-FEM-WAGES                 PIC 9(9).
00157          10  AD-MALE-CASH-PAY             PIC 9(9).
00158          10  AD-FEM-CASH-PAY              PIC 9(9).
00159          10  AD-MALE-NON-CASH             PIC 9(9).
00160          10  AD-FEM-NON-CASH              PIC 9(9).
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00161      05  OTHER-WORKER.                                          HIDC
00162          10  OT-MAN-DAYS              PIC 9(9).                 HIDC
00163          10  OT-WOMAN-DAYS            PIC 9(9).                 HIDC
00164          10  OT-AV-MALE-EMPL          PIC 9(9).                 HIDC
00165          10  OT-AV-FEM-EMPL           PIC 9(9).                 HIDC
00166          10  OT-MALE-WAGES            PIC 9(9).                 HIDC
00167          10  OT-FEM-WAGES             PIC 9(9).                 HIDC
00168          10  OT-MALE-CASH-PAY         PIC 9(9).                 HIDC
00169          10  OT-FEM-CASH-PAY          PIC 9(9).                 HIDC
00170          10  OT-MALE-NON-CASH         PIC 9(9).                 HIDC
00171          10  OT-FEM-NON-CASH          PIC 9(9).                 HIDC
00172      05  CONTRACT-LABOUR.                                       HIDC
00173          10  CN-MAN-DAYS              PIC 9(9).                 HIDC
00174          10  CN-AV-EMPLOYEE           PIC 9(9).                 HIDC
00175          10  CN-WAGES                 PIC 9(9).                 HIDC
00176          10  CN-CASH-PAY              PIC 9(9).                 HIDC
00177          10  CN-NON-CASH              PIC 9(9).                 HIDC
00178      05  WORKING-PROPRIETORS.                                   HIDC
00179          10  WP-MAN-DAYS              PIC 9(9).                 HIDC
00180          10  WP-AVERAGE               PIC 9(9).                 HIDC
00181          10  WP-WAGES                 PIC 9(9).                 HIDC
00182          10  WP-CASH-PAY              PIC 9(9).                 HIDC
00183          10  WP-NON-CASH              PIC 9(9).                 HIDC
00184      05  UNPAID-FAMILY-HELPERS.                                 HIDC
00185          10  UP-MAN-DAYS              PIC 9(9).                 HIDC
00186          10  UP-AV-HLPR               PIC 9(9).                 HIDC
00187          10  UP-WAGES                 PIC 9(9).                 HIDC
00188          10  UP-CASH-PAY              PIC 9(9).                 HIDC
00189          10  UP-NON-CASH              PIC 9(9).                 HIDC
00190      05  YEARLY-CONSUMPTION.                                    HIDC
00191          10  LCL-RAW-MAT              PIC 9(9).                 HIDC
00192          10  IMP-RAW-MAT              PIC 9(9).                 HIDC
00193          10  LCL-CHEMICAL             PIC 9(9).                 HIDC
00194          10  IMP-CHEMICAL             PIC 9(9).                 HIDC
00195          10  LCL-PACK-MAT             PIC 9(9).                 HIDC
00196          10  IMP-PACK-MAT             PIC 9(9).                 HIDC
00197          10  LCL-SPARE-PART           PIC 9(9).                 HIDC
00198          10  IMP-SPARE-PART           PIC 9(9).                 HIDC
00199          10  LCL-OTHER-SUPPLY         PIC 9(9).                 HIDC
00200          10  IMP-OTHER-SUPPLY         PIC 9(9).                 HIDC
00201          10  LCL-FUELS                PIC 9(9).                 HIDC
00202          10  IMP-FUELS                PIC 9(9).                 HIDC
00203          10  ELECTRICITY              PIC 9(9).                 HIDC
00204          10  CONT-COMMISSION          PIC 9(9).                 HIDC
00205          10  REPAIR-MAINTENANCE       PIC 9(9).                 HIDC
00206          10  PUR-MAT-RESOLD           PIC 9(9).                 HIDC
00207      05  RECEIPTS.                                              HIDC
00208          10  FINISHED-GOODS           PIC 9(9).                 HIDC
00209          10  BY-PRODUCT               PIC 9(9).                 HIDC
00210          10  IND-WASTE                PIC 9(9).                 HIDC
00211          10  WORK-DONE                PIC 9(9).                 HIDC
00212          10  GOODS-RESOLD             PIC 9(9).                 HIDC
00213          10  ELEC-RESOLD              PIC 9(9).                 HIDC
00214          10  FIXED-ASSETS-SOLD        PIC 9(9).                 HIDC
00215          10  WK-IN-PROC-SOLD          PIC 9(9).                 HIDC
00216      05  OTHER-EXPENDITURE.                                     HIDC
00217          10  EXCISE-DUTY              PIC 9(9).                 HIDC
00218          10  SALES-TAX                PIC 9(9).                 HIDC
00219          10  OTHER-TAX                PIC 9(9).                 HIDC
00220          10  PRINTING                 PIC 9(9).                 HIDC
00221          10  INS-ADVTISE              PIC 9(9).                 HIDC
00222          10  POST-TELE                PIC 9(9).                 HIDC
00223          10  DIRECTOR-TA              PIC 9(9).                 HIDC
00224          10  OTHER-TA                 PIC 9(9).                 HIDC
00225          10  BANK-EXP                 PIC 9(9).                 HIDC
00226          10  HEAD-OFFICE              PIC 9(9).                 HIDC
00227          10  OTHER-RENT               PIC 9(9).                 HIDC
00228          10  INTEREST                 PIC 9(9).                 HIDC
00229          10  OTHER-CHAREGE            PIC 9(9).                 HIDC
00230          10  SUBSIDIES                PIC 9(9).                 HIDC
00231          10  FILLER                   PIC X.                    HIDC
00232      05  MAJOR-INPUT-1.                                         HIDC
00233          10  ITEM-CODE-11             PIC 9(5).                 HIDC
00234          10  ITEM-NAME-11             PIC X(30).                HIDC
00235          10  UNIT-CODE-11             PIC 99.                   HIDC
00236          10  UNIT-NAME-11             PIC X(7).                 HIDC
00237          10  TOT-CON-QTY-11           PIC 9(9).                 HIDC
00238          10  TOT-CON-VAL-11           PIC 9(9).                 HIDC
00239          10  IMP-CON-QTY-11           PIC 9(9).                 HIDC
00240          10  IMP-CON-VAL-11           PIC 9(9).                 HIDC
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00241        05  MAJOR-INPUT-2.
00242            10  ITEM-CODE-12                    PIC 9(5).
00243            10  ITEM-NAME-12                    PIC X(30).
00244            10  UNIT-CODE-12                    PIC 99.
00245            10  UNIT-NAME-12                    PIC X(7).
00246            10  TOT-CON-QTY-12                  PIC 9(9).
00247            10  TOT-CON-VAL-12                  PIC 9(9).
00248            10  IMP-CON-QTY-12                  PIC 9(9).
00249            10  IMP-CON-VAL-12                  PIC 9(9).
00250        05  MAJOR-INPUT-3.
00251            10  ITEM-CODE-13                    PIC 9(5).
00252            10  ITEM-NAME-13                    PIC X(30).
00253            10  UNIT-CODE-13                    PIC 99.
00254            10  UNIT-NAME-13                    PIC X(7).
00255            10  TOT-CON-QTY-13                  PIC 9(9).
00256            10  TOT-CON-VAL-13                  PIC 9(9).
00257            10  IMP-CON-QTY-13                  PIC 9(9).
00258            10  IMP-CON-VAL-13                  PIC 9(9).
00259        05  MAJOR-OUTPUT-1.
00260            10  ITEM-CODE-21                    PIC 9(5).
00261            10  ITEM-NAME-21                    PIC X(30).
00262            10  UNIT-CODE-21                    PIC 99.
00263            10  UNIT-NAME-21                    PIC X(7).
00264            10  MFG-QTY-21                      PIC 9(9).
00265            10  MFG-VAL-21                      PIC 9(9).
00266        05  MAJOR-OUTPUT-2.
00267            10  ITEM-CODE-22                    PIC 9(5).
00268            10  ITEM-NAME-22                    PIC X(30).
00269            10  UNIT-CODE-22                    PIC 99.
00270            10  UNIT-NAME-22                    PIC X(7).
00271            10  MFG-QTY-22                      PIC 9(9).
00272            10  MFG-VAL-22                      PIC 9(9).
00273        05  MAJOR-OUTPUT-3.
00274            10  ITEM-CODE-23                    PIC 9(5).
00275            10  ITEM-NAME-23                    PIC X(30).
00276            10  UNIT-CODE-23                    PIC 99.
00277            10  UNIT-NAME-23                    PIC X(7).
00278            10  MFG-QTY-23                      PIC 9(9).
00279            10  MFG-VAL-23                      PIC 9(9).
00280        05  FILLER                              PIC XXXX.
00281    FD  OUT-FILE
00282        RECORDING MODE IS F
00283        LABEL RECORDS ARE STANDARD
00284        RECORD CONTAINS 70  CHARACTERS.
00285    01  OUT-REC.
00286        05  ESTB-CODE  X1                       PIC 9999.
00287        05  SAMPLE-CODE X2                      PIC 9.
00288        05  INDUSTRY-CODE X3                    PIC 9999.
00289        05  YR-CODE X4                          PIC 99.
00290        05  YEAR-NO X5                          PIC 99.
00291        05  DEFLATED-VALUE-OF-OUTPUT X6         PIC 9(12).
00292        05  DEFLATED-RAW-MATERIAL  X7           PIC 9(12).
00293        05  NO-OF-WORKER.
00294            10  OPERATIVE X8                    PIC 9(6).
00295            10  ADMINISTRATIVE X9               PIC 9(6).
00296            10  OTHER X10                       PIC 9(6).
00297            10  CONTRACT-LABOR X11              PIC 9(5).
00298            10  WORKING-PROPRIETOR X12          PIC 9(5).
00299            10  UNPAID-FAMILY-HELPER X13        PIC 9(5).
00300    WORKING-STORAGE SECTION.
00301    77  X                                       PIC 9(8)      VALUE  0.
00302    77  WRITE-CTR                               PIC 9(8)      VALUE  0.
00303    77  READ-CTR                                PIC 9(8)      VALUE  0.
00304    77  OUTPUT-CTR                              PIC 9(12)     VALUE  0.
00305    77  RAW-MAT-CTR                             PIC 9(12)     VALUE  0.
00306    77  P-INDEX                                 PIC 9V999     VALUE  0.
00307    01  PRICE-INDEX.
00308        05  PR-INDEX.
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Capital K in Cols. 71–80

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00417        05  PRINDX REDEFINES PR-INDEX.                              HID
00418            10  ABC OCCURS  108  TIMES.                             HID
00419                15  IND-CD            PIC  9999.                   HID
00420                15  INDX-76           PIC  9V999.                  HID
00421                15  INDX-80           PIC  9V999.                  HID
00422                15  INDX-81           PIC  9V999.                  HID
00423                15  INDX-82           PIC  9V999.                  HID
00424                15  INDX-83           PIC  9V999.                  HID
00425                15  INDX-84           PIC  9V999.                  HID
00426                15  INDX-85           PIC  9V999.                  HID
00427                15  INDX-86           PIC  9V999.                  HID
00428  PROCEDURE DIVISION.                                               HID
00429  START-RUN.                                                        HID
00430      OPEN INPUT CMI-FILE,                                          HID
00431          OUTPUT OUT-FILE.                                          HID
00432      MOVE SPACES TO OUT-REC.                                       HID
00433  READ-FILE.                                                        HID
00434      READ CMI-FILE                                                 HID
00435          AT END                                                    HID
00436              GO  TO STOP-RUN.                                      HID
00437      ADD  1  TO  READ-CTR.                                         HID
00438      MOVE ESTABLISHMENT TO ESTB-CODE.                              HID
00439      MOVE  1  TO  SAMPLE-CODE.                                     HID
00440      MOVE INDUSTRY  TO  INDUSTRY-CODE.                             HID
00441      MOVE  1  TO  X.                                               HID
00442  CHECK-INDUSTRY.                                                   HID
00443      IF INDUSTRY EQUAL TO IND-CD (X)                               HID
00444          GO  TO  CHECK-YEAR.                                       HID
00445      ADD  1  TO  X.                                                HID
00446      IF  X  IS  LESS THAN 109                                      HID
00447          GO  TO  CHECK-INDUSTRY.                                   HID
00448      DISPLAY " INDUSTRY NOT FOUND = " INDUSTRY.                    HID
00449      MOVE  44  TO  X.                                              HID
00450  CHECK-YEAR.                                                       HID
00451      MOVE YEAR  TO  YR-CODE.                                       HID
00452      IF YEAR EQUAL TO 75                                           HID
00453          MOVE  1  TO  YEAR-NO                                      HID
00454          MOVE  1  TO  P-INDEX          ELSE                        HID
00455      IF YEAR EQUAL TO 76                                           HID
00456          MOVE  2  TO  YEAR-NO                                      HID
00457          MOVE  INDX-76 (X) TO P-INDEX  ELSE                        HID
00458      IF YEAR EQUAL TO 80                                           HID
00459          MOVE  3  TO  YEAR-NO                                      HID
00460          MOVE  INDX-80 (X) TO P-INDEX  ELSE                        HID
00461      IF YEAR EQUAL TO 81                                           HID
00462          MOVE  4  TO  YEAR-NO                                      HID
00463          MOVE  INDX-81 (X) TO P-INDEX  ELSE                        HID
00464      IF YEAR EQUAL TO 82                                           HID
00465          MOVE  5  TO  YEAR-NO                                      HID
00466          MOVE  INDX-82 (X) TO P-INDEX  ELSE                        HID
00467      IF YEAR EQUAL TO 83                                           HID
00468          MOVE  6  TO  YEAR-NO                                      HID
00469          MOVE  INDX-83 (X) TO P-INDEX  ELSE                        HID
00470      IF YEAR EQUAL TO 84                                           HID
00471          MOVE  7  TO  YEAR-NO                                      HID
00472          MOVE  INDX-84 (X) TO P-INDEX  ELSE                        HID
00473      IF YEAR EQUAL TO 85                                           HID
00474          MOVE  8  TO  YEAR-NO                                      HID
00475          MOVE  INDX-85 (X) TO P-INDEX                              HID
00476      ELSE                                                          HID
00477          MOVE  9  TO  YEAR-NO                                      HID
00478          MOVE  INDX-86 (X) TO P-INDEX.                             HID
00479  MOVE-OUTPUT.
00480      ADD FINISHED-GOODS,  BY-PRODUCT, IND-WASTE,
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00481          WORK-DONE  GIVING  OUTPUT-CTR.                          HID
00482      MOVE OUTPUT-CTR  TO  DEFLATED-VALUE-OF-OUTPUT.               HID
00483      ADD TOT-CON-VAL-11, TOT-CON-VAL-12, TOT-CON-VAL-13           HID
00484          GIVING  RAW-MAT-CTR.                                     HID
00485      MOVE RAW-MAT-CTR  TO  DEFLATED-RAW-MATERIAL.                 HID
00486        GO  TO  MOVE-WORKER.                                       HID
00487  MOVE-WORKER.                                                     HID
00488      ADD OP-AV-MALE-EMPL, OP-AV-FEM-EMPL GIVING OPERATIVE.        HID
00489      ADD AD-AV-MALE-EMPL, AD-AV-FEM-EMPL GIVING ADMINISTRATIVE.   HID
00490      ADD OT-AV-MALE-EMPL, OT-AV-FEM-EMPL GIVING OTHER.            HID
00491      MOVE CN-AV-EMPLOYEE  TO  CONTRACT-LABOR.                     HID
00492      MOVE WP-AVERAGE      TO  WORKING-PROPRIETOR.                 HID
00493      MOVE UP-AV-HLPR      TO  UNPAID-FAMILY-HELPER.               HID
00494      WRITE OUT-REC.                                               HID
00495      MOVE SPACES TO OUT-REC.                                      HID
00496      ADD  1  TO  WRITE-CTR.                                       HID
00497       GO  TO  READ-FILE.                                          HID
00498  STOP-RUN.                                                        HID
00499      DISPLAY " RECORD READ = " READ-CTR.                          HID
00500      DISPLAY " RECORD WRITTEN = " WRITE-CTR.                      HID
00501      CLOSE CMI-FILE, OUT-FILE.                                    HID
00502          STOP RUN.                                                HID
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