SEA Fertility Transition Project Codebook

Malaysia

Data Documentation and Codebooks of the Merged (Pooled) Files of the
1970 and 1980 Census Microdata Samples

Malaysia: Geographical Comparability of Districts and Construction of Contextual Variables

1. Comparability of Districts between 1970 and 1980

The largest administrative units within Malaysia are states. For Peninsular Malaysia there were 11 states in 1970, and 11 states and the Wilayah Persekutan (Federal District) in 1980. After states districts are the next highest level of administrative unit. Districts are also the units that have been selected to represents 'contexts' for Malaysia in this project. As one of the foci of the analysis is change over time it is necessary to have comparable geographical units for the two time periods. 1970 and 1980. The strategy that we have adopted is to redefine 1980 district boundaries in order to make them equivalent with 1970 boundaries.

Between 1970 and 1980 however, there were a number of changes made in the boundaries of districts. In 1980 there were 70 districts in Peninsular Malaysia. By 1980 this number had increased to 78. Changes in district boundaries had occurred in six of the states. In four of the states, Kedah, Kelantan, Negri Sembilan, and Pahang new districts were created by splitting one district within each state, therefore equivalence of boundaries can be attained by combining the new district with the one that had been split. In the fifth state, Perak, the process, is more complicated in that a new district was constructed out of parts of three other districts. Fortunately the administrative unit below the district (the mukim), was used in the division. We have obtained, from the Malaysian Statistics Department, the names and codes of the mukims involved, and have reconstructed 1970 district boundaries in Perak by reallocating the mukims in the new district to the three former districts.

In only one state, Selangor, do problems arise in reconstructing 1970 boundaries. Between 1970 and 1980 changes occurred in all district boundaries, with the creation of the Wilayah Persekutan out of parts of the state, the creation of three new districts (Petaling, Sepang, and Gombak), and the elimination of one district (Kuala Lumpur). Since changes occurred, in many cases, by splitting mukims, it is not possible to simply recombine

mukims to obtain 1970 boundaries. At this point we have not been able to obtain instructions from the Malaysian Statistics Department on how to use lower level units (for example Census Districts) to reconstruct district boundaries.

The method that we use to make the district boundaries for Selangor comparable between 1970 and 1980, while certainly not completely accurate is, we believe, a satisfactory proxy. Out main strategy has been to use information concerning a fourth level of administrative unit, the Local Authority Area (LA's), in conjunction with mukims, to reallocate the 1980 population to 1970 districts. LA's are the urban administrative units. We have available from the Malaysian Statistics Department a list of all LA's, and their codes, for 1970 and 1980. In fact the 1980 census LA code is constructed to provide comparability across censuses.[1] Our first step was to match each LA from 1980 to 1970. The second step was to examine the distribution of LA's across mukims (LA's are not always contained within the same mukim).

If all 1980 LA's in a mukim were in a particular district in 1970 that mukim was allocated to the 1970 district. If, within a mukim, there were some LA's that belonged to one 1970 district, and some LA's that belonged to another 1970 district the LA's were individually reassigned to their former districts. The rule for allocating the non-LA component (ie. the rural and unassigned urban component) of these mukims was that the 1970 district that had received the largest population share from the allocation of the LA portion of the mukim would also receive the non-LA component.

The sources of possible error in the strategy we have followed obviously lie in the allocation of the non-LA component of the mukim. The assumption that all the non-LA population should go to the district which received the greatest proportion of the LA population is crude. However

[1] The code is four digits with the first two digits giving the code for 1970 and the second two digits the code for 1980. For rural areas the code is 99. Therefore for an area that was rural in both censuses the code would be 9999. Changes in the boundaries of LA's between censuses can also be seen from the combination of codes.

since it is likely that for the majority of the non-LA population the assumption is correct we believe it is the most viable solution to the problem. It also should be pointed out that it was only necessary to apply this rule three times since in nearly all cases mukims did not contain LA's going to different districts.[2] In the next section we detail the actual reconstruction of 1970 boundaries. As mukim names are unavailable the 1980 census codes are shown. LA names are available although we only show the 1980 census code.

Reconstruction of 1970 District Boundaries

A. Kedah - The new district of Pendang was combined with Kota Setar.

B. Kelantan - The new district of Kuala Kerai was combined with the district of Ulu Kelantan.

C. Negri Sembilan - The new district of Jempul was combined with the district of Kuala Pilah.

D. Pahang - The new district of Rompin was combined with the district of Pekan.

E. Perak - The new district of Perak Tengah was combined in the following way:

a) Mukims 02, 03, 07, 08 and 09 allocated to Kuala Kangsar.
b) Mukims 01, 05, 06, 10, 11, and 12 allocated to Hilir Perak.
c) All other mukims allocated to Dinding.

F. Selangor:

a) Mukims 1 and 3 in Gombak allocated to Kuala Lumpur.
b) Mukim 2 in Gombak allocated to Ulu Selangor.
c) Mukims 1, 3, and 5 in Petaling allocated to Kuala Lumpur.

[2] There still exists the assumption that the non-LA component of these mukims 'belonged' to the districts to which the LA component belong. We feel that this is a reasonable assumption.

d) LA's 106, 107, and 360 of Mukim 2 in Petaling allocated to Kuala Lumpur.

e) Balance of Mukim 2 in Petaling allocated to Kelang.

f) LA's 112 and 211 of Mukim 4 in Petaling allocated to Kelang.

g) Balance of Mukim 4 in Petaling allocated to Kuala Lumpur.

h) Mukim 3 in Sabak Bernham allocated to Kuala Selangor.

i) Mukims 2 and 3 in Sepang allocated to Kuala Langat.

j) Mukim 1 in Sepang allocated to Ulu Langat.

k) Non-LA component 9913 in Ulu Langat allocated to Kuala Lumpur.

l) Wilayah Persekutan allocated to Kuala Lumpur.

There exists one exception to the rules which have been outlined above. For infant and child mortality measures at the district level the source of data was the Vital Statistics reports available from the Malaysian Department of Statistics. As these measures are not available below the district level it is not possible to accurately reconstruct for all districts the measures of infant mortality based on 1970 district boundaries. Fortunately the districts used in both the 1968 and 1978 reports (our sources of data) are the same for all states with the exception of Selangor. For Selangor we adopted several simple aggregation rules, based on our understanding of how districts had been split up. These rules are as follows:

A. Measures[3] for Kuala Lumpur are constructed data from Gombak, Petaling and Wilayah Persekutan.

B. Data for Sepang are included in Kuala Langat.

C. The remaining five districts are treated as proxies for the same five districts that existed in 1970.

2. Creation of Contextual Variables

[3] Mortality rates were constructed using natality and mortality data.

The contextual variables employed in the project can be grouped into four categories, women's status, marriage, infant and child mortality, and the value of children. In the following section the different indicators tested, how the indicators were measured, and which indicators were selected for attaching to the individual record, are discussed separately for each category. Evaluation of the most appropriate indicators to be used are the same for each category. First the relationships among indicators are examined. If there is a high degree of similarity among the indicators (measured in terms of correlation coefficients) the selection is largely a matter preference based on theoretical grounds. Second the indicators are examined in relation to the dependent variables. Indicators that are most strongly related to the fertility variables are preferred. This second step is carried out both at a bivariate and multivariate level.

A. Women's Status.

Women's status is the most diffuse concept of those which we are attempting to measure. Therefore this area involves the largest number of indicators to be tested. Listed below are the 28 indicators of women status that are evaluated.

1. E1 : Proportion of Women 15-49 with Education greater than Primary level.
2. E2 : Proportion of Women 15-49 with Education greater than LCE.
3. E3 : Mean Educational Level of Women aged 15-49.
4. MED1 : Median level of Education of Women aged 15-49.
5. E4 : Proportion of Women 15-34 with Education greater than Primary level.
6. E5 : Proportion Women of 15-34 with Education greater than LCE.
7. E6 : Mean Educational Level of Women aged 15-34.
8. MED2 : Median level of Education of Women aged 15-34.
9. W1 : Proportion of Women 15-49 working in Non-Agricultural Sector.
10. W2 : Proportion of Women 15-49 working in Non-Agricultural Sector and not working as Family Workers in Sales or Service Sector.
11. W3 : Proportion of Women 15-49 working in Non-Agricultural Sector and not working in Sales or Service Sector.

12. W4 : Proportion of Working Women 15-49 working in Non-Agricultural Sector.

13. W5 : Proportion of Working Women 15-49 working in Non-Agricultural Sector and not working as Family Workers in Sales or Service Sector.

14. W6 : Proportion of Working Women 15-49 working in Non-Agricultural Sector and not working in Sales or Service Sector.

15. W7 : Proportion of Women 15-34 working in Non-Agricultural Sector.

16. W8 : Proportion of Women 15-34 working in Non-Agricultural Sector and not working as Family Workers in Sales or Service Sector.

17. W9 : Proportion of Women 15-34 working in Non-Agricultural Sector and not working in Sales or Service Sector.

18. W10 : Proportion of Working Women 15-34 working in Non-Agricultural Sector.

19. W11 : Proportion of Working Women 15-34 working in Non-Agricultural Sector and not working as Family Workers in Sales or Service Sector.

20. W12 : Proportion of Working Women 15-34 working in Non-Agricultural Sector and not working in Sales or Service Sector.

21. AGE1 : Mean Husband Wife age difference (Women aged 15-49).

22. AGE3 : Proportion of couples where Wife's Age is greater than Husband's Age (For women aged 15-49).

23. AGE2 : Mean Husband Wife age difference (Women aged 15-34).

24. AGE4 : Proportion of couples where Wife's Age is greater than Husband's Age (For women aged 15-34).

25. ED1 : Mean Difference of Husband's and Wife's Logged Level of Education (Women aged 15-49).

26. ED3 : Proportion of couples where Wife's Education is greater than Husband's Education (For women aged 15-49).

27. ED2 : Mean Difference of Husband's and Wife's Logged Level of Education (Women aged 15-34).

28. ED4 : Proportion of couples where Wife's Education is greater than Husband's Education (For women aged 15-34).

An examination of the correlations between the different measures suggest that either 15-34 or 15-49 could be adopted as the denominator for

the measures. In the paired comparisons between measures where only the population base varied correlations, with the exception of median education, were always above .97 and usually .99. As the relatively small number of cases for some districts dictates a that caution should be adopted in evaluating the values the degree of agreement between values based on the different sample sizes (women aged 15-34 and women aged 15-49) is encouraging.[4] Given the high correlations between variables based on different population bases it is not surprising that the relationships with the dependent variables are also very similar. As the population base of women aged 15-34 are to most likely to experience current fertility it would seem more appropriate to use the age group 15-34.

Each of the indicators in the separate sub-categories of the women's status variables are strongly related to the other indicators in the sub-categories. Since this therefore means that they also exhibit similar relationships with the dependent variables the choice of indicators hinges, to a large degree, on the most theoretically satisfying variable. For education this variable is E4 (the proportion of women aged 15-34 with a greater than high-school education). For employment the decision is more difficult. While measures based on the total population (w7 to w9) are preferred to measures based on only those women in the labor force (w10 to w12) because of the larger sample sizes of the former, the later measures are more strongly related to the dependent variables. The increment in explanatory power using the measures only based on women in the labor force is not great however given the very small sample sizes for this group it may be preferable to use measures based on all women. The most parsimonious measure, the percentage of women in the non-agricultural sector (w7 and w10), is usually more strongly related to the dependent variables than the more refined measures.

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[4] As the correlations used in the evaluation employ individual women as the units of analysis, districts with small numbers of women cannot influence the correlations to any large extent. We did, however examine data for consistency where there were less than 50 cases in the denominator of the contextual indicator. In a later section the number of districts in which the denominator is below 100 and below 50 is noted for those indicators chosen for the analysis. In none of these cases does the estimates appear unusual (judged in relation to the estimates of contiguous districts).

The other two sub-categories of women's status variables, age differences and educational differences, exhibit inconsistent results across the two different census years, and relatively low relationships with the dependent variables.

B. Marriage

Three indicators of the marriage market were employed. These indicators varied only in terms of the age group employed in the denominator.

1. MAR1 : Proportion of women aged 15-24 who are single.
2. MAR2 : Proportion of women aged 25-29 who are single.
3. MAR3 : Proportion of women aged 15-29 who are single.

For both 1970 and 1980 there is a strong relationship between MAR1 and MAR3. Because of the small population upon which MAR2 is based it is suggested that this measure not be used.

C. Infant and Child Mortality

Malaysia is the only one of the four countries in this project which has high quality vital statistics available. Therefore mortality data from the vital statistics was employed. It was decided to use two measures of mortality, infant mortality and child mortality.[5] These measures are for the total population (ie. male and females and different races are combined). Since mortality (and natality) data was only available by place of occurrence in the 1960s this form of data was used for both time periods.[6] Infant mortality rates were constructed from mortality and natality data which, therefore, allowed the aggregation rules for Selangor, mentioned in the

[5] In Malaysian Vital Statistics reports child mortality (ie mortality for children aged 1 to 4) is referred to as toddler mortality.

[6] For 1978, the year which was employed to approximate mortality conditions immediately before the 1980 census, mortality for the district of residence was also not available, although mortality details for the state of residence were available.

previous section, to be followed. Neither deaths or the appropriate population at risk were available at the district level for child mortality. For 1968 child mortality rates were not available for several districts outside Selangor (the districts of Sik, Tanah Merah, and Jerantut). These districts were newly created in the 1960s and the rates reported in the Vital Statistics publications use the older district boundaries. Therefore, for these three districts, the rates used are those of the districts which they were formerly a part of (ie. the child mortality rate for Sik was the rate reported for the district of Baling, that Tanah Merah the rate was that reported for Pasir Mas, and for Jerantut, the rate was that reported for Kuala Lipis). Within Selangor mortality data for not avaialable for Sabak Bernham which was also newly created in the 1960s. As it was formerly a part of Kuala Selangor, and as vital events were still reported with those of Kuala Selangor, the 1968 mortality rates we employ for Sabak Bernham are those reported for Kuala Selangor.

In 1978 rates were not available for the new districts created within the State of Selangor (Gombak, Sepang, and Petaling) or for the Wilayah Persekutan. As rates were also not available for these areas in 1977 or 1979 it was decided o use the 1976 Vital Statistics report to obtain a child mortality rate for Kuala Lumpur.

D. Child Labor

Four indicators for the value of children were constructed:

1. CHWORK - Proportion of Children Aged 10-14 in Labor Force.[7]
2. CHWORK1 - Proportion of Children Aged 10-18 in Labor Force.
3. CHSCL - Proportion of Children Aged 7-15 attending school.
4. CHSCL1 - Proportion of Children Aged 13-18 attending school.

For 1970 CHSCL and CHSCL1 exhibit similar correlations with the dependent variables, while in 1980 CHSCL, compared to CHSCL1, is much more

[7] The Labor Force includes all persons employed or unemployed (in 1980 the unemployed were split into two groups; unemployed actively seeking employment and those not actively seeking work. Both groups were include in the labor force.

strongly related to the dependent variables. For CHWORK and CHWORK1 the situation is reversed with, in 1970, CHWORK being more strongly related to the dependent variables than CHWORK1, while in 1980 the strength of the relationships are similar.

E. Family Planning

Based on information received from the National Family Planning Board (NFPB) several indicators of family planning inputs and outputs were constructed. The inputs were indexed by the number of clinics (which for 1970 refered to LPPKN clinics and in 1980 included LPPKN, INTERGRASI, FPA< KG.BIDAN, and FELDA clinics). Both main and branch clinics were listed for each administrative district. The number of clinics were summed and then expessed as a rate per 100 sq kilometers (CA) and per 1000 currently married women aged between 15 and 49 (CP). The denominator of the rate was obtained by weighting the sample census population by the inverse of the sampling fraction. One output measure was constructed - the number of new acceptors per 1000 currently married women aged 15-49 (AP). The number of new acceptors of contraceptives refers only to women obtaining contraceptivies from government agencies. The family planning variables are measured as of 1970 and 1980. All family planning variables are included on the merged file. The family Planning variables are shown below.

1. CA - Number of Clinics per 100 sq kilometers.
2. CP - Number of Clinics per 1000 currently married women aged 15-49.
3. AP - Number of Acceptors per 1000 currently married women aged 15-49.

As the data upon which the family planning indicators were based refered to 1980 district boundaries it was necessary to reallocate the various measures to match 1970 boundaries. For Selangor and Perak the allocation was carried out as follows: The boundary definitions discussed previouly in this paper were used to obtain the proportions of currently married women living in new districts created in 1980 in terms of the 1970 district boundaries. Then the various family planning indicators (clinics and acceptors) were reallocated according to these proportions. The actual proportions are provided below. For the new disricts created in Kedah.

Kelantan, Negri Sembilan, and Pahang the redistribution could be carried out by combining the maesures for old and new districts.

1. Perak - a) Perak Tengah - .623 to Kuala Kangsar, .377 to Hilir Perak.
2. Selangor - a) Gombak - .762 to Kuala Lumpur, .238 to Ulu Selangor.
b) Petaling - .807 to Kuala Lumpur, .193 to Kelang.
c) Sepang - .537 to Kuala Langat, .463 to Ulu Langat
d) Wilayah Persekutan - 1.000 to Kuala Lumpur.

F. Other Contextual Variables

Indicators of the 'urbanness' of a district were also constructed. The four measures are based on the urban variable in the census. For each of the four categories listed the proportion of respondents in each category, by district, was calculated. Therfore the total, if the four values were summed, for each district would be 1. These variables are listed below.

1. METRO - Proportion of persons in district living in places with population over 75,000 persons.
2. LURB - Proportion of persons in district living in places with population between 10000 and 74999 persons.
3. OURB - Proportion of persons in district living in places with population between 1000 and 9999 persons.
4. RURAL - Proportion of persons in district living in places with population less than 999 persons.

G. Selection of Indicators

Based on the analyses carried out above it was decided to include contextual indicators in the data file.[8] These indicators are:

[8] Several other contextual variables, aside from those listed below, were included on the merged file. The list of contextual variables included can be found in Appendix C.

1. E4 : Proportion of Women 15-34 with Education greater than Primary level.

2. W7 : Proportion of Women 15-34 working in Non-Agricultural Sector. 3. W10 : Proportion of Working Women 15-34 working in Non-Agricultural Sector.

4. MAR1 : Proportion of women aged 15-24 who are single.

5. CHWORK: Proportion of Children Aged 10-14 in Labor Force.

6. CHSCL : Proportion of Children Aged 7-15 attending school.

7. IM : Infant Mortality Rate.

8. CM : Child Mortality Rate.

For the 6 contextual variables constructed from the Censuses of 1970 and 1980 the size of the population bases is indicated.

Indicator	1970		1980	
	Less 100	Less 50	Less 100	Less 50
MAR1	18	3	18	4
E4	7	1	5	1
W7	7	1	5	1
W10	30	6	30	6
CHWORK	9	2	9	1
CHSCL	2	0	1	0

The indicators selected were included in a raw data file. The file, named MCONTEXT DAT, contains 17 variables. The first variable, named ADMINDIS, indicates the district, while the remaining 16 variables consist of the eight indicators measured for 1970 and for 1980. The year is identified by the addition of 70 or 80 onto the variable name. Therefore mar170 and mar180 are the respective 1970 and 1980 contextual measures for marriage.

This file has been matched to the 1970 and 1980 micro-data files and the resulting matched files have been merged. A new variable, YEAR, coded as either 1970 or 1980 indentifies from which census each observation was derived. Each record contains the contextual variables for 1970 and 1980.

This will enable the contextual change scores to be easily calculated. The tape information for the merged file, the EXEC file, and the SPSSX file that created the merged system file, are all shown in Appendix A.

As the variables contained in the 1970 and 1980 censuses are sometimes different, and as the coding the of same variable is often different for each census, it was necessary to recode the variables so that they be comparable across years. The recodes that were employed can be seen in the SPSSX program shown in Appendix A. In Appendix B the Malaysian component of the standard file codebooks are provided while in Appendix C the dictionary information from the SPSSX merged system file is shown.

APPENDIX A

Tape information at University of Washington (May 1988):

BIN NUMBER - BN0110

DSNAME - CH164

VOL ID - CH164

FILE ID - MMERGED

LRECL - 1024

BLKSIZE - 2048

RECFM - FB

The tape can be mounted with the command:

VMTAPE MOUNT BN0110 (LAB BLP

As the file is an SPSSX system file the only details needed in the EXEC file are:

FI INDATA TAP1 SL 1

Under the assumption that the tape is mounted on the default drive (181) and the chosen designation for the tape your SPSSX file is INDATA (the designation is arbitary).

The exec file used to read the raw data and create the system file is shown below:

```
/* To Run the Malaysian Contextual Variables */
'VMTAPE MOUNT BN0051 DSN MALAY70 (LAB BLP'
'VMTAPE MOUNT BN0110 DSN CH164 (RING LAB BLP'
'FI INDATA TAP1 SL 4 (RECFM FB BLKSIZE 32600 LRECL 200'
'FI INDATA1 TAP1 SL 3 (RECFM FB BLKSIZE 32600 LRECL 200'
'FI INDATA2 DISK MCONTEXT DAT'
'FI OUTCON DISK MCONTEXT SYS'
'FI OUTDATA DISK M70 SYS'
'FI OUTDATA1 DISK M80 SYS'
'FI OUTDATA3 TAP2 SL 1'
'LA OUTDATA3 FID MMERGED VOLID CH164 FSEQ 1 EXDTE 99364'
'SPSSX MCONTEXT (100K'
```

The file is written with REXX so the format may appear a little strange.

The SPSSX file (MCONTEXT SPSSX) associated with this exec is provided below:

```
DATA LIST FILE=INDATA2 FREE/ADMINDIS MAR170 E470 W770
   W870 W1070 AGE170 ED170 CHWORK70 CHSCL70 CM70 IM70
   METRO70 LURB70 OURB70 RURAL70 CA70 CP70 AP70 SEXRAT70
   MAR180 E480 W780 W880 W1080 AGE180 ED180
   CHWORK80 CHSCL80 CM80 IM80
   METRO80 LURB80 OURB80 RURAL80 CA80 CP80 AP80 SEXRAT80
SAVE OUTFILE=OUTCON
DATA LIST FILE=INDATA/HH 1-7 STATE 8-11 DISTRICT 12-15
  URBAN 24 MUKIM 16-17 LA 18-19
  AGE 33-34 RELHH 36 MARSTAT 37-38 ETHNIC 39-41
  RELIGION 45-47 CITIZEN 48
  HILEVEL 51-52 EDUC 53-55 LIT 58-59 SCATT 60-61
  POB 64-67 LIVEMAL 72-75 LIVLOC 76-79
  MARDUR 88-89 MARNUM 90-91
  CEB 98-99 CS 104-105 OCC 120-123 IND 124-127
  USACT 128 USIND 129-130 ACT 131 FAMBUS 133 WKSTAT 135
  MATCH 140 HAGE 141-142 HHILEVEL 143-144 HEDUC 145-147
  HLIT 150-151 HSCATT 152-153
  HOCC 154-157 HIND 158-161 HUSACT 162 HUSIND 163-164
  HACT 165 HFAMBUS 167 HWKSTAT 169
  NKIDS 174 C1 TO C8 175-182 NUKIDS 183-184 UC1 TO UC16 185-200
COMPUTE ETHNIC1=ETHNIC
RECODE ETHNIC1 (01 THRU 09=1) (10 THRU 19=2) (20 THRU 27=3) (ELSE=4)
DO IF (RELHH EQ 8)
COMPUTE RELHH=7
ELSE IF (RELHH EQ 9)
COMPUTE RELHH=8
END IF
COMPUTE OWN=0
COUNT OWN=C1 TO C8(2)
IF (OWN GE 1) OWN=1
RECODE CEB CS (30=99) (31=0) (21 THRU 29=99) (32 THRU 98=99)
MISSING VALUES CEB CS (99)
COMPUTE ADMINDIS=(STATE*100)+DISTRICT
RECODE CITIZEN (1 THRU 3=1) (4 THRU 6=2) (ELSE=9)
DO IF (EDUC GE 21 AND EDUC LE 27)
COMPUTE HILEVEL=13
ELSE IF (EDUC GE 11 AND EDUC LE 17)
COMPUTE HILEVEL=14
END IF
DO IF (HEDUC GE 21 AND HEDUC LE 27)
COMPUTE HHILEVEL=13
ELSE IF (HEDUC GE 11 AND HEDUC LE 17)
COMPUTE HHILEVEL=14
END IF
DO IF (LIT GE 1 AND LIT LE 31)
COMPUTE LIT=1
ELSE IF (LIT EQ 32 OR LIT EQ 33)
COMPUTE LIT=2
ELSE
COMPUTE LIT=3
```

```
END IF
DO IF (HLIT GE 1 AND HLIT LE 31)
COMPUTE HLIT=1
ELSE IF (HLIT EQ 32 OR HLIT EQ 33)
COMPUTE HLIT=2
ELSE
COMPUTE HLIT=3
END IF
DO IF (POB GE 15 AND POB LE 25)
COMPUTE POB=15
ELSE IF (POB EQ 26)
COMPUTE POB=16
END IF
RECODE LIVEMAL (10=1) (11=2) (12=3) (13=4) (14=5) (15=6) (16 THRU 18=7)
  (8,9=7) (19=9)/LIVLOC (8,9=7)
DO IF (MARSTAT EQ 1)
COMPUTE MARDUR=100
END IF
RECODE MARNUM (4,3=2)/USACT HUSACT (7=6)/USIND HUSIND (11=0)/ACT HACT
 (4,5=3)
DO IF  (FAMBUS EQ 5)
COMPUTE FAMBUS=0
ELSE IF (FAMBUS EQ 2 OR FAMBUS EQ 3)
COMPUTE FAMBUS=1
ELSE IF (FAMBUS EQ 4)
COMPUTE FAMBUS=2
END IF
DO IF  (HFAMBUS EQ 5)
COMPUTE HFAMBUS=0
ELSE IF (HFAMBUS EQ 2 OR HFAMBUS EQ 3)
COMPUTE HFAMBUS=1
ELSE IF (HFAMBUS EQ 4)
COMPUTE HFAMBUS=2
END IF
DO IF (WKSTAT EQ 2)
COMPUTE WKSTAT=3
ELSE IF (WKSTAT EQ 3)
COMPUTE WKSTAT=2
END IF
DO IF (HWKSTAT EQ 2)
COMPUTE HWKSTAT=3
ELSE IF (HWKSTAT EQ 3)
COMPUTE HWKSTAT=2
END IF
MATCH FILES FILE=*/TABLE=OUTCON/BY ADMINDIS
RECODE ADMINDIS (101=1) (102=2) (103=3) (104=4) (105=5) (106=6) (107=7)
 (108=8) (201=9) (202=10) (203=11) (204=12) (205=13) (206=14) (207=15)
 (208=16) (209=17) (210=18) (301=19) (302=20) (303=21) (304=22) (305=23)
 (306=24) (307=25) (308=26) (401=27) (402=28) (403=29) (501=30) (502=31)
 (503=32) (504=33) (505=34) (506=35) (601=36) (602=37) (603=38) (604=39)
 (605=40) (606=41) (607=42) (608=43) (701=44) (702=45) (703=46) (704=47)
 (705=48) (801=49) (802=50) (803=51) (804=52) (805=53) (806=54) (807=55)
 (808=56) (901=57) (1001=58) (1002=59) (1003=60) (1004=61) (1005=62)
 (1006=63) (1007=64) (1101=65) (1102=66) (1103=67) (1104=68) (1105=69)
 (1106=70)
COMPUTE YEAR=1970
VALUE LABELS ETHNIC1 1 'MALAY' 2 'CHINESE' 3 'INDIAN' 4 'OTHER'
```

```
 /ADMINDIS 1 'BATU PAHAT' 2 'JOHOR BAHARU' 3 'KELUANG' 4 'KOTA TINGGI'
 5 'MERSING' 6 'MUAR' 7 'PONTIAN' 8 'SEGAMAT' 9 'BALING' 10 'BANDAR BARU'
 11 'KOTA SETAR' 12 'KUALA MUDA' 13 'KUBANG PASU' 14 'KULIM'
 15 'PULAU LANGKAWI' 16 'PADANG TERAP' 17 'SIK' 18 'YAN' 19 'BACHOK'
 20 'KOTA BAHRU' 21 'MACHANG' 22 'PASIR MAS' 23 'PASIR PUTEH'
 24 'TANAH MERAH' 25 'TUMPAT' 26 'ULU KELANTAN' 27 'ALOR GAJAH'
 28 'JASIN' 29 'MELAKA TENGAH' 30 'JELEBU' 31 'KUALA PILAH'
 32 'PORT DICKSON' 33 'REMBAU' 34 'SEREMBAN' 35 'TAMPIN' 36 'BENTONG'
 37 'CAMERON HIGHLANDS' 38 'JERANTUT' 39 'KUANTAN' 40 'LIPIS'
 41 'PEKAN' 42 'RAUB' 43 'TEMERLOH' 44 'BUKIT METAJAM' 45 'BUTTERWORTH'
 46 'NIBONG TEBAL' 47 'P.PENANG TIMUR LAUT' 48 'P.PENANG BARAT'
 49 'BATANG PADANG' 50 'DINDING' 51 'KINTA' 52 'KERIAN' 53 'K.KANGSAR'
 54 'LARAUT DAN MASANG' 55 'HILIR PERAK' 56 'HULU PERAK'
 57 'PERLIS' 58 'KELANG' 59 'KUALA LANGAT' 60 'KUALA LUMPUR'
 61 'KUALA SELANGOR' 62 'SABAK BERNAM' 63 'ULU LANGAT'
 64 'ULU SELANGOR' 65 'BESUT' 66 'DUNGUN' 67 'KEMAMAN'
 68 'KUALA TRENGGANU' 69 'MARANG' 70 'ULU TRENGGANU'/STATE 1 'JOHOR'
 2 'KEDAH' 3 'KELANTAN' 4 'MELAKA' 5 'NEGRI SEMBILAN' 6 'PAHANG'
 7 'PENANG' 8 'PERAK' 9 'PERLIS' 10 'SELANGOR' 11 'TRENGGANU'/
 RELHH 0 'HEAD OF HOUSEHOLD' 1 'SPOUSE' 2 'UNMARRIED CHILD'
 3 'PARENT' 4 'SIBLING' 5 'OTHER REL-YOUNGER'
 6 'OTHER REL-OLDER' 7 'NON-RELATIVES' 8 'VISITORS'/
 MARSTAT 1 'NEVER MARRIED' 2 'MARRIED' 3 'WIDOWED' 4 'DIVORCED-SEPARATED'
 /URBAN 1 'METRO' 2 'LARGE URBAN' 3 'OTHER URBAN' 4 'RURAL' /
 RELIGION 1 'ISLAM' 2 'HINDU' 3 'CHRISTIAN' 4 'BUDDHIST'
 5 'NO RELIGION' 6 'OTHER'/
 CITIZEN 1 'MALAYSAIN' 2 'NON-MALAYSIAN' 9 'UNKNOWN'/
 HILEVEL HHILEVEL 1 'NO EDUCATION' 2 'SOME PRIMARY' 3 'COMPLETE PRIMARY'
 4 'FORM 1-2' 5 'FORM 3-NO LCE' 6 'LCE' 7 'FORM 4' 8 'FORM 8-NO SC'
 9 'SC' 10 'FORM 6-LOWER' 11 'FORM 6-NO HSC' 12 'HSC'
 13 'TERTIARY-NO DEGREE' 14 'UNIVERSITY DEGREE'/
 LIT HLIT 1 'LITERATE' 2 'SEMI-LITERATE' 3 'ILLITERATE'/
 POB 1 'JOHOR' 2 'KEDAH' 3 'KELANTAN' 4 'MELAKA' 5 'NEGRI SEMBILAN'
 6 'PAHANG' 7 'PENANG' 8 'PERAK' 9 'PERLIS' 10 'SELANGOR' 11 'TRENGGANU'
 12 'SABAH' 13 'SARAWAK' 14 'STATE UNKNOWN' 15 'OUTSIDE MALAYSIA'
 16 'UNKNOWN'/LIVEMAL LIVLOC 1 'LESS THAN 1 YEAR' 2 '1 YEAR' 3 '2 YEARS'
 4 '3 YEARS' 5 '4 YEARS' 6 '5 YEARS' 7 '6+ YEARS' 9 'UNKNOWN'/
 MARDUR 100 'NEVER MARRIED' 101 'UNKNOWN'/MARNUM 0 'NEVER MARRIED'
 1 'ONCE' 2 '2 OR MORE'/
 OCC HOCC 997 'INADEQAUETLY DESCRIBED'
 998 'NOT STATED' 999 'NOT IN LABOR FORCE'/USACT HUSACT
 1 'EMPLOYER-SELF-EMPLOYED' 2 'EMPLOYEE' 3 'FAMILY WORKER'
 4 'HOUSEWORK' 5 'STUDENT' 6 'OTHER'/USIND HUSIND 0 'NOT APP-NOT STATED'
 1 'PADI' 2 'LOGGING-TIMBER' 3 'FISHING' 4 'RUBBER' 5 'OTHER AGRICULTURE'
 6 'MANUFACTURING-CONSTRUCTION' 7 'COMMERCE' 8 'TRANSPORT-COMMUNICATION'
 9 'SERVICES' 10 'OTHER'/ACT HACT 0 'NOT APP-UNKNOWN' 1 'EMPLOYED'
 2 'UNEMPLOYED' 3 'NOT IN LABOR FORCE'/
 FAMBUS HFAMBUS 0 'NOT APP-NOT STATED'
 1 'YES' 2 'NO'/WKSTAT HWKSTAT 0 'NOT IN LF-NOT STATED'
 1 'EMPLOYER' 2 'EMPLOYEE' 3 'SELF-EMPLOYED' 4 'FAMILY WORKER'
 5 'LOOKING FOR FIRST JOB'/MATCH 0 'NO HUSBAND MATCH' 1 'HUSBAND MATCH'
VARIABLE LABELS  ADMINDIS 'ADMINISTRATIVE DISTRICT'
 /HAGE 'HUSBANDS AGE'/MARSTAT 'MARITAL STATUS'/ETHNIC 'ETHNICITY'
 /RELHH 'RELATIONSHIP TO HOUSEHOLD HEAD'/ETHNIC1 'RECODED ETHNICITY'
 /HILEVEL 'EDUCATIONAL ATTAINMENT'/
 HHILEVEL 'HUSBANDS EDUCATIONAL ATTAINMENT'/
 LIT 'LITERACY'/HLIT 'HUSBANDS LITERACY'
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/POB 'PLACE OF BIRTH'/LIVEMAL 'TIME LIVED IN MALAYSIA'/
LIVLOC 'TIME LIVED IN LOCALITY'/MARDUR 'MARITAL DURATION'/
MARNUM 'NUMBER TIMES MARRIED'
/OCC 'OCCUPATION'/HOCC 'HUSBANDS OCCUPATION'/IND 'INDUSTRY'
/HIND 'HUSBANDS INDUSTRY'/USACT 'USUAL ACTIVITY'/
HUSACT 'HUSBANDS USUAL ACTIVITY'/
USIND 'USUAL INDUSTRY'/HUSIND 'HUSBANDS USUAL INDUSTRY'
/ACT 'ACTIVITY'/HACT 'HUSBANDS ACTIVITY'/
FAMBUS 'HELP IN FAMILY BUSINESS'/
HFAMBUS 'HUSBAND HELP IN FAMILY BUSINESS'/WKSTAT 'WORK STATUS'
/HWKSTAT 'HUSBANDS WORK STATUS'/CEB 'CHILDREN-EVER-BORN'/CS
'CHILDREN STILL LIVING'/MATCH 'HUSBAND MATCH'/
OWN 'OWN-CHILDREN AGED 2'/
NKIDS 'NUMBER OF MATCHED CHILDREN'/NUKIDS 'NUMBER OF UNMATCHED CHILDREN'
/C1 'AGE OF IST MATCHED CHILD'/C2 'AGE OF 2ND MATCHED CHILD'/
C3 'AGE OF 3RD MATCHED CHILD'/C4 'AGE OF 4TH MATCHED CHILD'/
C5 'AGE OF 5TH MATCHED CHILD'/C6 'AGE OF 6TH MATCHED CHILD'/
C7 'AGE OF 7TH MATCHED CHILD'/C8 'AGE OF 8TH MATCHED CHILD'/
UC1 'AGE OF IST UNMATCHED CHILD'/UC2 'AGE OF 2ND UNMATCHED CHILD'/
UC3 'AGE OF 3RD UNMATCHED CHILD'/UC4 'AGE OF 4TH UNMATCHED CHILD'/
UC5 'AGE OF 5TH UNMATCHED CHILD'/UC6 'AGE OF 6TH UNMATCHED CHILD'/
UC7 'AGE OF 7TH UNMATCHED CHILD'/UC8 'AGE OF 8TH UNMATCHED CHILD'/
UC9 'AGE OF 9TH UNMATCHED CHILD'/UC10 'AGE OF 10TH UNMATCHED CHILD'/
UC11 'AGE OF 11TH UNMATCHED CHILD'/UC12 'AGE OF 12TH UNMATCHED CHILD'/
UC13 'AGE OF 13TH UNMATCHED CHILD'/UC14 'AGE OF 14TH UNMATCHED CHILD'/
UC15 'AGE OF 15TH UNMATCHED CHILD'/UC16 'AGE OF 16TH UNMATCHED CHILD'
/MAR170 '1970 PROPORTION WOMEN AGED 15-24 WHO ARE SINGLE'
/E470 '1970 PROPORTION OF WOMEN 15-34 WITH EDUCATION GT PRIMARY'
/W770 '1970 PROPORTION OF WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
/W870 '1970 PROP WOM 15-34 IN NON AGRIRCULTURE, FAMILY WORKERS'
/W1070 '1970 PROP WORKING WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
/AGE170  '1970 MEAN HUSBAND-WIFE AGE DIFFERENCE (WOMEN AGED 15-49)'
/ED170 '1970 MEAN DIFFERENCE OF HUSB-WIFE LOG EDUCATION'
/CHWORK70 '1970 PROP CHILDREN 10-14 IN LABOR FORCE'
/CHSCL70  '1970 PROPORTION CHILDREN 7-15 ATTENDING SCHOOL'
/CM70  '1968 CHILD MORTALITY RATE'
/IM70  '1968 INFANT MORTALITY RATE'
/METRO70 '1970 PROPORTION IN AREAS 75000 AND ABOVE'
/LURB70  '1970 PROPORTION IN AREAS 10000 TO 74999'
/OURB70  '1970 PROPORTION IN AREAS 1000 TO 9999'
/RURAL70 '1970 PROPORTION IN AREAS 999 OR LESS'
/CA70  '1970 NUMBER OF FAMILY PLANNING CLINICS PER 100 SQ KMS'
/CP70  '1970 NUMBER OF FAMILY PLANNING CLINICS PER 1000 CMW AGED 15-49'
/AP70  '1970 NUMBER OF ACCEPTORS PER 1000 CMW AGED 15-49'
/SEXRAT70 '1970 PROPORTION MALES AGES 15-34'
/MAR180 '1980 PROPORTION WOMEN AGED 15-24 WHO ARE SINGLE'
/E480 '1980 PROPORTION OF WOMEN 15-34 WITH EDUCATION GT PRIMARY'
/W780 '1980 PROPORTION OF WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
/W880 '1980 PROP WOM 15-34 IN NON AGRIRCULTURE, FAMILY WORKERS'
/W1080 '1980 PROP WORKING WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
/AGE180  '1980 MEAN HUSBAND-WIFE AGE DIFFERENCE (WOMEN AGED 15-49)'
/ED180 '1980 MEAN DIFFERENCE OF HUSB-WIFE LOG EDUCATION'
/CHWORK80 '1980 PROP CHILDREN 10-14 IN LABOR FORCE'
/CHSCL80  '1980 PROPORTION CHILDREN 7-15 ATTENDING SCHOOL'
/CM80  '1978 CHILD MORTALITY RATE'
/IM80  '1978 INFANT MORTALITY RATE'
/METRO80 '1980 PROPORTION IN AREAS 75000 AND ABOVE'
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 /LURB80  '1980 PROPORTION IN AREAS 10000 TO 74999'
 /OURB80  '1980 PROPORTION IN AREAS 1000 TO 9999'
 /RURAL80 '1980 PROPORTION IN AREAS 999 OR LESS'
 /CA80  '1980 NUMBER OF FAMILY PLANNING CLINICS PER 100 SQ KMS'
 /CP80  '1980 NUMBER OF FAMILY PLANNING CLINICS PER 1000 CMW AGED 15-49'
 /AP80  '1980 NUMBER OF ACCEPTORS PER 1000 CMW AGED 15-49'
 /SEXRAT80 '1980 PROPORTION MALES AGES 15-34'
SAVE OUTFILE=OUTDATA/KEEP=STATE ADMINDIS URBAN AGE HAGE RELHH MARSTAT
   ETHNIC ETHNIC1 RELIGION CITIZEN HILEVEL HHILEVEL LIT HLIT POB
   LIVEMAL LIVLOC MARDUR MARNUM OCC HOCC IND HIND USACT HUSACT USIND
   HUSIND ACT HACT FAMBUS HFAMBUS WKSTAT HWKSTAT CEB CS MATCH OWN
   NKIDS NUKIDS C1 C2 C3 C4 C5 C6 C7 C8 UC1 UC2 UC3 UC4 UC5 UC6 UC7 UC8
   UC9 UC10 UC11 UC12 UC13 UC14 UC15 UC16 MAR170 E470 W770
   W870 W1070 AGE170 ED170 CHWORK70 CHSCL70 CM70 IM70
   METRO70 LURB70 OURB70 RURAL70 CA70 CP70 AP70 SEXRAT70
   MAR180 E480 W780 W880 W1080 AGE180 ED180
   CHWORK80 CHSCL80 CM80 IM80
   METRO80 LURB80 OURB80 RURAL80 CA80 CP80 AP80 SEXRAT80 YEAR
DATA LIST FILE=INDATA1/STATE 8-9 DISTRICT 12-13
  MUKIM 14-15 LA 16-19 URBAN 24
  AGE 33-34 RELHH 35-36 MARSTAT 37-38 ETHNIC 39-41
  RELIGION 45-47 CITIZEN 48-50
  HILEVEL 56-57 EDUC 51-52 LIT 60 SCATT 61
  POB 64-67 LIVEMAL 68-69 LIVLOC 70-71
  AGEMAR 86-87 MARNUM 90-91
  CEB 98-99 CS 104-105 OCC 120-122 IND 123-127
  USACT 134-135 USIND 136-137 ACT 130 FAMBUS 128 WKSTAT 133
  MATCH 140 HAGE 141-142 HHILEVEL 148-149 HEDUC 143-144
  HLIT 152 HSCATT 153
  HOCC 154-156 HIND 157-161 HUSACT 168-169 HUSIND 170-171
  HACT 164 HFAMBUS 162 HWKSTAT 167
  NKIDS 174 C1 TO C8 175-182 NUKIDS 183-184 UC1 TO UC16 185-200
COMPUTE ETHNIC1=ETHNIC
RECODE ETHNIC1 (01 THRU 09=1) (10 THRU 19=2) (20 THRU 29=3) (ELSE=4)
DO IF (RELHH EQ 1)
COMPUTE RELHH=0
ELSE IF (RELHH EQ 2)
COMPUTE RELHH=1
ELSE IF (RELHH EQ 3)
COMPUTE RELHH=2
ELSE IF (RELHH EQ 4)
COMPUTE RELHH=5
ELSE IF (RELHH EQ 6)
COMPUTE RELHH=5
ELSE IF (RELHH EQ 7)
COMPUTE RELHH=3
ELSE IF (RELHH EQ 8)
COMPUTE RELHH=4
ELSE IF (RELHH EQ 9)
COMPUTE RELHH=6
ELSE IF (RELHH EQ 10)
COMPUTE RELHH=7
ELSE IF (RELHH EQ 11)
COMPUTE RELHH=8
END IF
COMPUTE OWN=0
COUNT OWN=C1 TO C8(2)
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IF (OWN GE 1) OWN=1
RECODE CEB CS (30=99) (31=0) (21 THRU 29=99) (32 THRU 98=99)
MISSING VALUES CEB CS (99)
DO IF (STATE EQ 10 AND DISTRICT EQ 1 AND (MUKIM EQ 1 OR MUKIM EQ 3))
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 10 AND DISTRICT EQ 1 AND MUKIM EQ 2)
COMPUTE DISTRICT=7
ELSE IF (STATE EQ 10 AND DISTRICT EQ 2)
COMPUTE DISTRICT=1
ELSE IF (STATE EQ 10 AND DISTRICT EQ 3)
COMPUTE DISTRICT=2
ELSE IF (STATE EQ 10 AND DISTRICT EQ 5 AND (MUKIM EQ 1 OR MUKIM EQ 3 OR
  MUKIM EQ 5))
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 10 AND DISTRICT EQ 5 AND MUKIM EQ 2 AND (LA EQ 106 OR
  LA EQ 107 OR LA EQ 360))
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 10 AND DISTRICT EQ 5 AND MUKIM EQ 2)
COMPUTE DISTRICT=1
ELSE IF (STATE EQ 10 AND DISTRICT EQ 5 AND MUKIM EQ 4 AND (LA EQ 112 OR
  LA EQ 211))
COMPUTE DISTRICT=1
ELSE IF (STATE EQ 10 AND DISTRICT EQ 5 AND MUKIM EQ 4)
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 10 AND DISTRICT EQ 6 AND MUKIM EQ 3)
COMPUTE DISTRICT=4
ELSE IF (STATE EQ 10 AND DISTRICT EQ 6)
COMPUTE DISTRICT=5
ELSE IF (STATE EQ 10 AND DISTRICT EQ 7 AND (MUKIM EQ 2 OR MUKIM EQ 3))
COMPUTE DISTRICT=2
ELSE IF (STATE EQ 10 AND DISTRICT EQ 7 AND MUKIM EQ 1)
COMPUTE DISTRICT=6
ELSE IF (STATE EQ 10 AND DISTRICT EQ 8 AND LA EQ 9913)
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 10 AND DISTRICT EQ 8)
COMPUTE DISTRICT=6
ELSE IF (STATE EQ 10 AND DISTRICT EQ 9)
COMPUTE DISTRICT=7
ELSE IF (STATE EQ 14)
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 2 AND DISTRICT EQ 11)
COMPUTE DISTRICT=3
ELSE IF (STATE EQ 3 AND DISTRICT EQ 9)
COMPUTE DISTRICT=8
ELSE IF (STATE EQ 5 AND DISTRICT EQ 7)
COMPUTE DISTRICT=2
ELSE IF (STATE EQ 6 AND DISTRICT EQ 9)
COMPUTE DISTRICT=6
ELSE IF (STATE EQ 8 AND DISTRICT EQ 9 AND (MUKIM EQ 02 OR MUKIM EQ 03
     OR MUKIM EQ 07 OR MUKIM EQ 08 OR MUKIM EQ 09))
COMPUTE DISTRICT=5
ELSE IF (STATE EQ 8 AND DISTRICT EQ 9 AND (MUKIM EQ 01 OR MUKIM EQ 05
     OR MUKIM EQ 06 OR MUKIM EQ 10 OR MUKIM EQ 11 OR MUKIM EQ 12))
COMPUTE DISTRICT=8
ELSE IF (STATE EQ 8 AND DISTRICT EQ 9)
COMPUTE DISTRICT=2
END IF
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RECODE STATE (14=10)
COMPUTE ADMINDIS=(STATE*100)+DISTRICT
DO IF (RELIGION EQ 2)
COMPUTE RELIGION=3
ELSE IF (RELIGION EQ 3)
COMPUTE RELIGION=2
ELSE IF (RELIGION EQ 8)
COMPUTE RELIGION=5
ELSE IF (RELIGION GE 5 AND RELIGION LE 7)
COMPUTE RELIGION=6
END IF
DO IF (CITIZEN EQ 1)
COMPUTE CITIZEN=9
ELSE IF (CITIZEN EQ 2)
COMPUTE CITIZEN=1
ELSE
COMPUTE CITIZEN=2
END IF
DO IF (SCATT EQ 3)
COMPUTE HILEVEL=1
ELSE IF (EDUC GE 1 AND EDUC LE 5)
COMPUTE HILEVEL=2
ELSE IF (EDUC EQ 6)
COMPUTE HILEVEL=3
ELSE IF (HILEVEL GE 8 AND HILEVEL LE 9)
COMPUTE HILEVEL=4
ELSE IF (HILEVEL EQ 10)
COMPUTE HILEVEL=5
ELSE IF (HILEVEL EQ 11)
COMPUTE HILEVEL=6
ELSE IF (HILEVEL EQ 12 OR HILEVEL EQ 18)
COMPUTE HILEVEL=7
ELSE IF (HILEVEL EQ 13 OR HILEVEL EQ 19)
COMPUTE HILEVEL=8
ELSE IF (HILEVEL EQ 14 OR HILEVEL EQ 20)
COMPUTE HILEVEL=9
ELSE IF (HILEVEL EQ 15)
COMPUTE HILEVEL=10
ELSE IF (HILEVEL EQ 16)
COMPUTE HILEVEL=11
ELSE IF (HILEVEL EQ 17)
COMPUTE HILEVEL=12
ELSE IF (HILEVEL GE 21 AND HILEVEL LE 22)
COMPUTE HILEVEL=13
ELSE IF (HILEVEL GE 23)
COMPUTE HILEVEL=14
END IF
DO IF (HSCATT EQ 3)
COMPUTE HHILEVEL=1
ELSE IF (HEDUC GE 1 AND HEDUC LE 5)
COMPUTE HHILEVEL=2
ELSE IF (HEDUC EQ 6)
COMPUTE HHILEVEL=3
ELSE IF (HHILEVEL GE 8 AND HHILEVEL LE 9)
COMPUTE HHILEVEL=4
ELSE IF (HHILEVEL EQ 10)
COMPUTE HHILEVEL=5
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ELSE IF (HHILEVEL EQ 11)
COMPUTE HHILEVEL=6
ELSE IF (HHILEVEL EQ 12 OR HHILEVEL EQ 18)
COMPUTE HHILEVEL=7
ELSE IF (HHILEVEL EQ 13 OR HHILEVEL EQ 19)
COMPUTE HHILEVEL=8
ELSE IF (HHILEVEL EQ 14 OR HHILEVEL EQ 20)
COMPUTE HHILEVEL=9
ELSE IF (HHILEVEL EQ 15)
COMPUTE HHILEVEL=10
ELSE IF (HHILEVEL EQ 16)
COMPUTE HHILEVEL=11
ELSE IF (HHILEVEL EQ 17)
COMPUTE HHILEVEL=12
ELSE IF (HHILEVEL GE 21 AND HHILEVEL LE 22)
COMPUTE HHILEVEL=13
ELSE IF (HHILEVEL GE 23)
COMPUTE HHILEVEL=14
END IF
DO IF (POB EQ 12)
COMPUTE POB=10
ELSE IF (POB EQ 13)
COMPUTE POB=12
ELSE IF (POB EQ 14)
COMPUTE POB=13
ELSE IF (POB EQ 15)
COMPUTE POB=14
ELSE IF (POB GE 16 AND POB LE 24)
COMPUTE POB=15
ELSE IF (POB EQ 25)
COMPUTE POB=16
END IF
RECODE LIVEMAL LIVLOC (8 THRU 10=7) (11=9)
COMPUTE MARDUR=0
DO IF (AGEMAR EQ 0)
COMPUTE MARDUR=100
ELSE IF (AGEMAR NE 99)
COMPUTE MARDUR=AGE-AGEMAR
ELSE IF (AGEMAR EQ 99)
COMPUTE MARDUR=101
END IF
RECODE OCC HOCC (996=998) (0=999)/IND HIND (0=99900)
DO IF (USACT EQ 3)
COMPUTE USACT=1
ELSE IF (USACT EQ 4)
COMPUTE USACT=3
ELSE IF (USACT EQ 6)
COMPUTE USACT=4
ELSE IF (USACT EQ 7)
COMPUTE USACT=5
ELSE IF (USACT EQ 5 OR USACT EQ 8)
COMPUTE USACT=6
END IF
DO IF (HUSACT EQ 3)
COMPUTE HUSACT=1
ELSE IF (HUSACT EQ 4)
COMPUTE HUSACT=3
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ELSE IF (HUSACT EQ 6)
COMPUTE HUSACT=4
ELSE IF (HUSACT EQ 7)
COMPUTE HUSACT=5
ELSE IF (HUSACT EQ 5 OR HUSACT EQ 8)
COMPUTE HUSACT=6
END IF
DO IF (ACT EQ 1 OR ACT EQ 2)
COMPUTE ACT=1
ELSE IF (ACT EQ 3 OR ACT EQ 4)
COMPUTE ACT=2
ELSE IF (ACT EQ 5)
COMPUTE ACT=3
ELSE IF (ACT EQ 6)
COMPUTE ACT=0
END IF
DO IF (HACT EQ 1 OR HACT EQ 2)
COMPUTE HACT=1
ELSE IF (HACT EQ 3 OR HACT EQ 4)
COMPUTE HACT=2
ELSE IF (HACT EQ 5)
COMPUTE HACT=3
ELSE IF (HACT EQ 6)
COMPUTE HACT=0
END IF
SORT CASES BY ADMINDIS
MATCH FILES FILE=*/TABLE=OUTCON/BY ADMINDIS
COMPUTE YEAR=1980
RECODE ADMINDIS (101=1) (102=2) (103=3) (104=4) (105=5) (106=6) (107=7)
 (108=8) (201=9) (202=10) (203=11) (204=12) (205=13) (206=14) (207=15)
 (208=16) (209=17) (210=18) (301=19) (302=20) (303=21) (304=22) (305=23)
 (306=24) (307=25) (308=26) (401=27) (402=28) (403=29) (501=30) (502=31)
 (503=32) (504=33) (505=34) (506=35) (601=36) (602=37) (603=38) (604=39)
 (605=40) (606=41) (607=42) (608=43) (701=44) (702=45) (703=46) (704=47)
 (705=48) (801=49) (802=50) (803=51) (804=52) (805=53) (806=54) (807=55)
 (808=56) (901=57) (1001=58) (1002=59) (1003=60) (1004=61) (1005=62)
 (1006=63) (1007=64) (1101=65) (1102=66) (1103=67) (1104=68) (1105=69)
 (1106=70)
VALUE LABELS ETHNIC1 1 'MALAY' 2 'CHINESE' 3 'INDIAN' 4 'OTHER'
 /ADMINDIS 1 'BATU PAHAT' 2 'JOHOR BAHARU' 3 'KELUANG' 4 'KOTA TINGGI'
 5 'MERSING' 6 'MUAR' 7 'PONTIAN' 8 'SEGAMAT' 9 'BALING' 10 'BANDAR BARU'
 11 'KOTA SETAR' 12 'KUALA MUDA' 13 'KUBANG PASU' 14 'KULIM'
 15 'PULAU LANGKAWI' 16 'PADANG TERAP' 17 'SIK' 18 'YAN' 19 'BACHOK'
 20 'KOTA BAHRU' 21 'MACHANG' 22 'PASIR MAS' 23 'PASIR PUTEH'
 24 'TANAH MERAH' 25 'TUMPAT' 26 'ULU KELANTAN' 27 'ALOR GAJAH'
 28 'JASIN' 29 'MELAKA TENGAH' 30 'JELEBU' 31 'KUALA PILAH'
 32 'PORT DICKSON' 33 'REMBAU' 34 'SEREMBAN' 35 'TAMPIN' 36 'BENTONG'
 37 'CAMERON HIGHLANDS' 38 'JERANTUT' 39 'KUANTAN' 40 'LIPIS'
 41 'PEKAN' 42 'RAUB' 43 'TEMERLOH' 44 'BUKIT METAJAM' 45 'BUTTERWORTH'
 46 'NIBONG TEBAL' 47 'P.PENANG TIMUR LAUT' 48 'P.PENANG BARAT'
 49 'BATANG PADANG' 50 'DINDING' 51 'KINTA' 52 'KERIAN' 53 'K.KANGSAR'
 54 'LARAUT DAN MASANG' 55 'HILIR PERAK' 56 'HULU PERAK'
 57 'PERLIS' 58 'KELANG' 59 'KUALA LANGAT' 60 'KUALA LUMPUR'
 61 'KUALA SELANGOR' 62 'SABAK BERNAM' 63 'ULU LANGAT'
 64 'ULU SELANGOR' 65 'BESUT' 66 'DUNGUN' 67 'KEMAMAN'
 68 'KUALA TRENGGANU' 69 'MARANG' 70 'ULU TRENGGANU'/STATE 1 'JOHOR'
 2 'KEDAH' 3 'KELANTAN' 4 'MELAKA' 5 'NEGRI SEMBILAN' 6 'PAHANG'
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 7 'PENANG' 8 'PERAK' 9 'PERLIS' 10 'SELANGOR' 11 'TRENGGANU'/
 RELHH 0 'HEAD OF HOUSEHOLD' 1 'SPOUSE' 2 'UNMARRIED CHILD'
 3 'PARENT' 4 'SIBLING' 5 'OTHER REL-YOUNGER'
 6 'OTHER REL-OLDER' 7 'NON-RELATIVES' 8 'VISITORS'/
 MARSTAT 1 'NEVER MARRIED' 2 'MARRIED' 3 'WIDOWED' 4 'DIVORCED-SEPARATED'
 /URBAN 1 'METRO' 2 'LARGE URBAN' 3 'OTHER URBAN' 4 'RURAL' /
 RELIGION 1 'ISLAM' 2 'HINDU' 3 'CHRISTIAN' 4 'BUDDHIST'
 5 'NO RELIGION' 6 'OTHER'/
 CITIZEN 1 'MALAYSAIN' 2 'NON-MALAYSIAN' 9 'UNKNOWN'/
 HILEVEL HHILEVEL 1 'NO EDUCATION' 2 'SOME PRIMARY' 3 'COMPLETE PRIMARY'
 4 'FORM 1-2' 5 'FORM 3-NO LCE' 6 'LCE' 7 'FORM 4' 8 'FORM 8-NO SC'
 9 'SC' 10 'FORM 6-LOWER' 11 'FORM 6-NO HSC' 12 'HSC'
 13 'TERTIARY-NO DEGREE' 14 'UNIVERSITY DEGREE'/
 LIT HLIT 1 'LITERATE' 2 'SEMI-LITERATE' 3 'ILLITERATE'/
 POB 1 'JOHOR' 2 'KEDAH' 3 'KELANTAN' 4 'MELAKA' 5 'NEGRI SEMBILAN'
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 12 'SABAH' 13 'SARAWAK' 14 'STATE UNKNOWN' 15 'OUTSIDE MALAYSIA'
 16 'UNKNOWN'/LIVEMAL LIVLOC 1 'LESS THAN 1 YEAR' 2 '1 YEAR' 3 '2 YEARS'
 4 '3 YEARS' 5 '4 YEARS' 6 '5 YEARS' 7 '6+ YEARS' 9 'UNKNOWN'/
 MARDUR 100 'NEVER MARRIED' 101 'UNKNOWN'/MARNUM 0 'NEVER MARRIED'
 1 'ONCE' 2 '2 OR MORE'/ OCC HOCC 997 'INADEQAUETLY DESCRIBED'
 998 'NOT STATED' 999 'NOT IN LABOR FORCE'/USACT HUSACT
 1 'EMPLOYER-SELF-EMPLOYED' 2 'EMPLOYEE' 3 'FAMILY WORKER'
 4 'HOUSEWORK' 5 'STUDENT' 6 'OTHER'/USIND HUSIND 0 'NOT APP-NOT STATED'
 1 'PADI' 2 'LOGGING-TIMBER' 3 'FISHING' 4 'RUBBER' 5 'OTHER AGRICULTURE'
 6 'MANUFACTURING-CONSTRUCTION' 7 'COMMERCE' 8 'TRANSPORT-COMMUNICATION'
 9 'SERVICES' 10 'OTHER'/ACT HACT 0 'NOT APP-UNKNOWN' 1 'EMPLOYED'
 2 'UNEMPLOYED' 3 'NOT IN LABOR FORCE'/
 FAMBUS HFAMBUS 0 'NOT APP-NOT STATED'
 1 'YES' 2 'NO'/WKSTAT HWKSTAT 0 'NOT IN LF-NOT STATED'
 1 'EMPLOYER' 2 'EMPLOYEE' 3 'SELF-EMPLOYED' 4 'FAMILY WORKER'
 5 'LOOKING FOR FIRST JOB'/MATCH 0 'NO HUSBAND MATCH' 1 'HUSBAND MATCH'
VARIABLE LABELS  ADMINDIS 'ADMINISTRATIVE DISTRICT'
 /HAGE 'HUSBANDS AGE'/MARSTAT 'MARITAL STATUS'/ETHNIC 'ETHNICITY'
 /RELHH 'RELATIONSHIP TO HOUSEHOLD HEAD'/ETHNIC1 'RECODED ETHNICITY'
 /HILEVEL 'EDUCATIONAL ATTAINMENT'/
 HHILEVEL 'HUSBANDS EDUCATIONAL ATTAINMENT'/
 LIT 'LITERACY'/HLIT 'HUSBANDS LITERACY'
 /POB 'PLACE OF BIRTH'/LIVEMAL 'TIME LIVED IN MALAYSIA'/
 LIVLOC 'TIME LIVED IN LOCALITY'/MARDUR 'MARITAL DURATION'/
 MARNUM 'NUMBER TIMES MARRIED'
 /OCC 'OCCUPATION'/HOCC 'HUSBANDS OCCUPATION'/IND 'INDUSTRY'
 /HIND 'HUSBANDS INDUSTRY'/USACT 'USUAL ACTIVITY'/
 HUSACT 'HUSBANDS USUAL ACTIVITY'/
 USIND 'USUAL INDUSTRY'/HUSIND 'HUSBANDS USUAL INDUSTRY'
 /ACT 'ACTIVITY'/HACT 'HUSBANDS ACTIVITY'/
 FAMBUS 'HELP IN FAMILY BUSINESS'/
 HFAMBUS 'HUSBAND HELP IN FAMILY BUSINESS'/WKSTAT 'WORK STATUS'
 /HWKSTAT 'HUSBANDS WORK STATUS'/CEB 'CHILDREN-EVER-BORN'/CS
 'CHILDREN STILL LIVING'/MATCH 'HUSBAND MATCH'/
 OWN 'OWN-CHILDREN AGED 2'/
 NKIDS 'NUMBER OF MATCHED CHILDREN'/NUKIDS 'NUMBER OF UNMATCHED CHILDREN'
 /C1 'AGE OF IST MATCHED CHILD'/C2 'AGE OF 2ND MATCHED CHILD'/
 C3 'AGE OF 3RD MATCHED CHILD'/C4 'AGE OF 4TH MATCHED CHILD'/
 C5 'AGE OF 5TH MATCHED CHILD'/C6 'AGE OF 6TH MATCHED CHILD'/
 C7 'AGE OF 7TH MATCHED CHILD'/C8 'AGE OF 8TH MATCHED CHILD'/
 UC1 'AGE OF IST UNMATCHED CHILD'/UC2 'AGE OF 2ND UNMATCHED CHILD'/
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 UC3 'AGE OF 3RD UNMATCHED CHILD'/UC4 'AGE OF 4TH UNMATCHED CHILD'/
 UC5 'AGE OF 5TH UNMATCHED CHILD'/UC6 'AGE OF 6TH UNMATCHED CHILD'/
 UC7 'AGE OF 7TH UNMATCHED CHILD'/UC8 'AGE OF 8TH UNMATCHED CHILD'/
 UC9 'AGE OF 9TH UNMATCHED CHILD'/UC10 'AGE OF 10TH UNMATCHED CHILD'/
 UC11 'AGE OF 11TH UNMATCHED CHILD'/UC12 'AGE OF 12TH UNMATCHED CHILD'/
 UC13 'AGE OF 13TH UNMATCHED CHILD'/UC14 'AGE OF 14TH UNMATCHED CHILD'/
 UC15 'AGE OF 15TH UNMATCHED CHILD'/UC16 'AGE OF 16TH UNMATCHED CHILD'
 /MAR170 '1970 PROPORTION WOMEN AGED 15-24 WHO ARE SINGLE'
 /E470 '1970 PROPORTION OF WOMEN 15-34 WITH EDUCATION GT PRIMARY'
 /W770 '1970 PROPORTION OF WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
 /W870 '1970 PROP WOM 15-34 IN NON AGRIRCULTURE, FAMILY WORKERS'
 /W1070 '1970 PROP WORKING WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
 /AGE170  '1970 MEAN HUSBAND-WIFE AGE DIFFERENCE (WOMEN AGED 15-49)'
 /ED170 '1970 MEAN DIFFERENCE OF HUSB-WIFE LOG EDUCATION'
 /CHWORK70 '1970 PROP CHILDREN 10-14 IN LABOR FORCE'
 /CHSCL70  '1970 PROPORTION CHILDREN 7-15 ATTENDING SCHOOL'
 /CM70  '1968 CHILD MORTALITY RATE'
 /IM70  '1968 INFANT MORTALITY RATE'
 /METRO70 '1970 PROPORTION IN AREAS 75000 AND ABOVE'
 /LURB70  '1970 PROPORTION IN AREAS 10000 TO 74999'
 /OURB70  '1970 PROPORTION IN AREAS 1000 TO 9999'
 /RURAL70 '1970 PROPORTION IN AREAS 999 OR LESS'
 /CA70  '1970 NUMBER OF FAMILY PLANNING CLINICS PER 100 SQ KMS'
 /CP70  '1970 NUMBER OF FAMILY PLANNING CLINICS PER 1000 CMW AGED 15-49'
 /AP70  '1970 NUMBER OF ACCEPTORS PER 1000 CMW AGED 15-49'
 /SEXRAT70 '1970 PROPORTION MALES AGES 15-34'
 /MAR180 '1980 PROPORTION WOMEN AGED 15-24 WHO ARE SINGLE'
 /E480 '1980 PROPORTION OF WOMEN 15-34 WITH EDUCATION GT PRIMARY'
 /W780 '1980 PROPORTION OF WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
 /W880 '1980 PROP WOM 15-34 IN NON AGRIRCULTURE, FAMILY WORKERS'
 /W1080 '1980 PROP WORKING WOMEN 15-34 IN NON-AGRICULTURAL SECTOR'
 /AGE180  '1980 MEAN HUSBAND-WIFE AGE DIFFERENCE (WOMEN AGED 15-49)'
 /ED180 '1980 MEAN DIFFERENCE OF HUSB-WIFE LOG EDUCATION'
 /CHWORK80 '1980 PROP CHILDREN 10-14 IN LABOR FORCE'
 /CHSCL80  '1980 PROPORTION CHILDREN 7-15 ATTENDING SCHOOL'
 /CM80  '1978 CHILD MORTALITY RATE'
 /IM80  '1978 INFANT MORTALITY RATE'
 /METRO80 '1980 PROPORTION IN AREAS 75000 AND ABOVE'
 /LURB80  '1980 PROPORTION IN AREAS 10000 TO 74999'
 /OURB80  '1980 PROPORTION IN AREAS 1000 TO 9999'
 /RURAL80 '1980 PROPORTION IN AREAS 999 OR LESS'
 /CA80  '1980 NUMBER OF FAMILY PLANNING CLINICS PER 100 SQ KMS'
 /CP80  '1980 NUMBER OF FAMILY PLANNING CLINICS PER 1000 CMW AGED 15-49'
 /AP80  '1980 NUMBER OF ACCEPTORS PER 1000 CMW AGED 15-49'
 /SEXRAT80 '1980 PROPORTION MALES AGES 15-34'
SAVE OUTFILE=OUTDATA1/KEEP=STATE ADMINDIS URBAN AGE HAGE RELHH MARSTAT
   ETHNIC ETHNIC1 RELIGION CITIZEN HILEVEL HHILEVEL LIT HLIT POB
   LIVEMAL LIVLOC MARDUR MARNUM OCC HOCC IND HIND USACT HUSACT USIND
   HUSIND ACT HACT FAMBUS HFAMBUS WKSTAT HWKSTAT CEB CS MATCH OWN
   NKIDS NUKIDS C1 C2 C3 C4 C5 C6 C7 C8 UC1 UC2 UC3 UC4 UC5 UC6 UC7 UC8
   UC9 UC10 UC11 UC12 UC13 UC14 UC15 UC16 MAR170 E470 W770
   W870 W1070 AGE170 ED170 CHWORK70 CHSCL70 CM70 IM70
   METRO70 LURB70 OURB70 RURAL70 CA70 CP70 AP70 SEXRAT70
   MAR180 E480 W780 W880 W1080 AGE180 ED180
   CHWORK80 CHSCL80 CM80 IM80
   METRO80 LURB80 OURB80 RURAL80 CA80 CP80 AP80 SEXRAT80 YEAR
ADD FILES FILE=OUTDATA/FILE=OUTDATA1
```

```
SAVE OUTFILE=OUTDATA3
FINISH
```

APPENDIX B

MALAYSIA, 1970 CENSUS.

INPUT LOCATION, as substring of raw data rec	VARIABLE DESCRIPTION	STANDARD FILE (output) LOCATION
WIFE INFORMATION:		
YH(F(7))	Computed: Serial No. of HH in sample	1- 7
[HHR](1,2)	State	8- 11
[HHR](3,2)	Administrative District	12- 15
[HHR](5,2)	Daerah/Mukim	16- 17
[HHR](9,2)	Local Authority	18- 19
[HHR]' '||(12,3)	Living quarters number	20- 23
[HHR](7,1)	Urban-Rural	24- 24
[HHR](17,3)	Household size	25- 27
'00001'	Weighting factor (constant = 00001)	28- 32
(28,3)	Age (100+ recoded as 99)	33- 34
(34,1)	Family unit	35- 35
(35,1)	Relationship torespective family head	36- 36
' '||(55,1)	Marital status	37- 38
' '||(11,2)	Ethnic Group (Community)	39- 41
' '||(51,2)	Language (everyday conversation)	42- 44
' '||(16,1)	Religion	45- 47
(20,1)	Malaysian citizen	48- 48
(21,1)	Other citizen	49- 49
(22,1)	Singapore identity card	50- 50
(18,2)	Highest level of schooling	51- 52
' '||(49,2)	Education	53- 55
'99'	Education, other (N.A.)	56- 57
(53,2)	Literacy	58- 59
' '||(17,1)	School attendance	60- 61
'99'	Migrant status (N.A.)	62- 63
' '||(23,2)	Place of birth	64- 67
'9999'	Place of birth, other (N.A.)	68- 71
' '||(25,2)	Lived in Malaysia	72- 75
' '||(27,1)	Lived in locality	76- 79
'99'	Migration, other (N.A.)	80- 81
' '||(31,3)	Previous residence	82- 85
'99'	Age at marriage (N.A.)	86- 87
(57,3)	Years married (100 recoded as 0)	88- 89
' '||(56,1)	Times married	90- 91
'99'	Marriage, other info (N.A.)	92- 93
'99'	Contraception: Ever use (N.A)	94- 95
'99'	Contraception: Current use (N.A.)	96- 97
(62,2)	Children ever born, Total	98- 99
'99'	children ever born, male (N.A.)	100-101
'99'	children ever born, female (N.A.)	102-103
(60,2)	Live children, Total	104-105
'99'	live children, male (N.A.)	106-107
'99'	live children, female (N.A.)	108-109
'99'	Number of children who died (N.A.)	110-111

'99'	Date of last birth, month (N.A.)	112-113
'99'	Date of last birth, year (N.A.)	114-115
'99'	Last born is still alive (N.A.)	116-117
'99'	Number of births last year (N.A.)	118-119
' '||(42,3)	Occupation	120-123
' '||(45,3)	Industry	124-127
(13,1)	Usual activity	128-128
(14,2)	Usual industry	129-130
(37,1)	Type of activity	131-131
(38,2)	Regular job	132-132
(39,1)	Family business	133-133
(40,1)	Home made goods	134-134
(41,1)	Employment status	135-135
(48,1)	Work at home	136-136
'999'	Work, other variables (N.A.)	137-139

HUSBAND INFORMATION:

0,1 (f(1))	Computed: Husband match=1, else=0	140-140
(28,3)	Age, husband (100+ recoded as 99)	141-142
(18,2)	Level of schooling, husband	143-144
' '||(49,2)	Education, husband	145-147
'99'	Education, other, husband (N.A.)	148-149
(53,2)	Literacy, husband	150-151
' '||(17,1)	School attendance, husband	152-153
' '||(42,3)	Occupation, husband	154-157
' '||(45,3)	Industry, husband	158-161
(13,1)	Usual activity, husband	162-162
(14,2)	Usual industry, husband	163-164
(37,1)	Type of activity, husband	165-165
(38,2)	Regular job, husband	166-166
(39,1)	Family business, husband	167-167
(40,1)	Home made goods, husband	168-168
(41,1)	Employment status, husband	169-169
(48,1)	Work at home, husband	170-170
'999'	Work, other variables, husband (N.A.)	171-173

OWN (matched) CHILDREN INFORMATION:

OWN(f(1))	Computed: Number of matched own kids	174-174
K1(28,3)	Age of matched own kid No.1	175-175
K2(28,3)	Age of matched own kid No.2	176-176
K3(28,3)	Age of matched own kid No.3	177-177
K4(28,3)	Age of matched own kid No.4	178-178
K5(28,3)	Age of matched own kid No.5	179-179
k6(28,3)	Age of matched own kid no.6	180-180
K7(28,3)	Age of matched own kid No.7	181-181
K8(28,3)	Age of matched own kid No.8	182-182

CHILDREN (in Household) WITH NO MOTHER-MATCH:

OTH(f(2))	Computed: Number of unmatched kids in HH	183-184
K 1(28,3)	Age of unmatched kid in HH, No. 1	185-185
K 2(28,3)	Age of unmatched kid in HH, No. 2	186-186
K 3(28,3)	Age of unmatched kid in HH, No. 3	187-187
K 4(28,3)	Age of unmatched kid in HH, No. 4	188-188
K 5(28,3)	Age of unmatched kid in HH, No. 5	189-189

K 6(28,3)	Age of unmatched kid in HH, No. 6	190-190
K 7(28,3)	Age of unmatched kid in HH, No. 7	191-191
K 8(28,3)	Age of unmatched kid in HH, No. 8	192-192
K 9(28,3)	Age of unmatched kid in HH, No. 9	193-193
K10(28,3)	Age of unmatched kid in HH, No.10	194-194
K11(28,3)	Age of unmatched kid in HH, No.11	195-195
K12(28,3)	Age of unmatched kid in HH, No.12	196-196
K13(28,3)	Age of unmatched kid in HH, No.13	197-197
K14(28,3)	Age of unmatched kid in HH, No.14	198-198
K15(28,3)	Age of unmatched kid in HH, No.15	199-199
K16(28,3)	Age of unmatched kid in HH, No.16	200-200

MALAYSIA, 1980 CENSUS.

INPUT LOCATION, as substring of raw data rec	VARIABLE DESCRIPTION	STANDARD FILE (output) LOCATION
WIFE INFORMATION:		
YH(F(7))	Computed: Serial No. of HH in sample	1- 7
(2,2)	State	8- 9
(4,2)	Census District	10- 11
(17,2)	Administrative District	12- 13
(19,2)	Mukim	14- 15
(21,4)	Local Authority Area	16- 19
' '||(27,2)	KMukim (Kelantan only)	20- 23
(25,1)	Urban-Rural	24- 24
(32,3)	Household size (de facto)	25- 27
'00001'	Weighting factor (constant = 00001)	28- 32
(64,2)	Age	33- 34
(62,2)	Relationship to HH head	35- 36
' '||(121,1)	Marital status	37- 38
' '||(68,2)	Ethnic Group	39- 41
(114,3)	Language	42- 44
' '(70,1)	Religion	45- 47
' '(71,1)	Citizenship	48- 50
(74,2)	Level of schooling	51- 52
' '||(76,1)	Certificates obtained	53- 55
(77,2)	Educational attainment	56- 57

(79,1)	Vocational training attendance	58- 58
(80,1)	Field of vocational training	59- 59
(117,1)	Literacy	60- 60
(73,1)	School attendance	61- 61
' '||(87,1)	Migrant status	62- 63
' '||(81,2)	Place of birth	64- 67
(83,2)	Duration of residence in Malaysia	68- 69
(85,2)	Duration of residence in locality	70- 71
' '||(88,3)	Urban/rural previous residence	72- 75
' '||(91,3)	District/State of previous residence	76- 79
(94,2)	Reason for moving	80- 81
'9999'	Other migration variables (N.A.)	82- 85
(123,2)	Age at marriage	86- 87
'99'	Duration of marriage (N.A.)	88- 89
' '||(122,1)	Number of times married	90- 91
'99'	Marriage, other info (N.A.)	92- 93
'99'	Contraception: Ever use (N.A)	94- 95
'99'	Contraception: Current use (N.A.)	96- 97
(125,2)	Children ever born, Total	98- 99
'99'	children ever born, male (N.A.)	100-101
'99'	children ever born, female (N.A.)	102-103
(127,2)	Live children, Total	104-105
'99'	live children, male (N.A.)	106-107
'99'	live children, female (N.A.)	108-109
'99'	Number of children who died (N.A.)	110-111
'99'	Date of last birth, month (N.A.)	112-113
'99'	Date of last birth, year (N.A.)	114-115
'99'	Last born is still alive (N.A.)	116-117
'99'	Number of births last year (N.A.)	118-119
(103,3)	Occupation	120-122
(106,5)	Industry or business	123-127
(97,1)	Helping in family business or farm	128-128
(98,1)	Hours worked	129-129
(99,1)	Type of activity	130-130
(100,2)	Reasons not looking for job	131-132
(102,1)	Employment status	133-133
' '||(111,1)	Usual activity	134-135
(112,2)	Usual industry	136-137
'99'	Other work variables (N.A.)	138-139

HUSBAND INFORMATION:

0,1 (f(1))	Computed: Husband match=1, else=0	140-140
(64,2)	Age, husband	141-142
(74,2)	Level of schooling, husband	143-144
' '||(76,1)	Certificates obtained, husband	145-147
(77,2)	Educational attainment, husband	148-149
(79,1)	Vocational training attend., husband	150-150
(80,1)	Field of vocational training, husband	151-151
(117,1)	Literacy, husband	152-152
(73,1)	School attendance, husband	153-153
(103,3)	Occupation, husband	154-156
(106,5)	Industry, husband	157-161
(97,1)	Helping in family business or farm	162-162
(98,1)	Hours worked	163-163

(99,1)	Type of activity	164-164
(100,2)	Reasons not looking for job	165-166
(102,1)	Employment status	167-167
' '||(111,1)	Usual activity	168-169
(112,2)	Usual industry	170-171
'99'	Other work variables (N.A.)	172-173

OWN (matched) CHILDREN INFORMATION:

OWN(f(1))	Computed: Number of matched own kids	174-174
K1(64,2)	Age of matched own kid No.1	175-175
K2(64,2)	Age of matched own kid No.2	176-176
K3(64,2)	Age of matched own kid No.3	177-177
K4(64,2)	Age of matched own kid No.4	178-178
K5(64,2)	Age of matched own kid No.5	179-179
k6(64,2)	Age of matched own kid no.6	180-180
K7(64,2)	Age of matched own kid No.7	181-181
K8(64,2)	Age of matched own kid No.8	182-182

CHILDREN (in Household) WITH NO MOTHER-MATCH:

OTH(f(2))	Computed: Number of unmatched kids in HH	183-184
K 1(64,2)	Age of unmatched kid in HH, No. 1	185-185
K 2(64,2)	Age of unmatched kid in HH, No. 2	186-186
K 3(64,2)	Age of unmatched kid in HH, No. 3	187-187
K 4(64,2)	Age of unmatched kid in HH, No. 4	188-188
K 5(64,2)	Age of unmatched kid in HH, No. 5	189-189
K 6(64,2)	Age of unmatched kid in HH, No. 6	190-190
K 7(64,2)	Age of unmatched kid in HH, No. 7	191-191
K 8(64,2)	Age of unmatched kid in HH, No. 8	192-192
K 9(64,2)	Age of unmatched kid in HH, No. 9	193-193
K10(64,2)	Age of unmatched kid in HH, No.10	194-194
K11(64,2)	Age of unmatched kid in HH, No.11	195-195
K12(64,2)	Age of unmatched kid in HH, No.12	196-196
K13(64,2)	Age of unmatched kid in HH, No.13	197-197
K14(64,2)	Age of unmatched kid in HH, No.14	198-198
K15(64,2)	Age of unmatched kid in HH, No.15	199-199
K16(64,2)	Age of unmatched kid in HH, No.16	200-200

APPENDIX C

LIST OF VARIABLES ON THE ACTIVE FILE

NAME		POSITION
STATE		1
1	JOHOR	
2	KEDAH	
3	KELANTAN	
4	MELAKA	
5	NEGRI SEMBILAN	
6	PAHANG	
7	PENANG	
8	PERAK	
9	PERLIS	
10	SELANGOR	
11	TRENGGANU	
ADMINDIS	ADMINISTRATIVE DISTRICT	2
1.00	BATU PAHAT	
2.00	JOHOR BAHARU	
3.00	KELUANG	
4.00	KOTA TINGGI	
5.00	MERSING	
6.00	MUAR	
7.00	PONTIAN	
8.00	SEGAMAT	
9.00	BALING	
10.00	BANDAR BARU	
11.00	KOTA SETAR	
12.00	KUALA MUDA	
13.00	KUBANG PASU	
14.00	KULIM	
15.00	PULAU LANGKAWI	
16.00	PADANG TERAP	
17.00	SIK	
18.00	YAN	
19.00	BACHOK	
20.00	KOTA BAHRU	
21.00	MACHANG	
22.00	PASIR MAS	
23.00	PASIR PUTEH	
24.00	TANAH MERAH	
25.00	TUMPAT	
26.00	ULU KELANTAN	
27.00	ALOR GAJAH	
28.00	JASIN	
29.00	MELAKA TENGAH	
30.00	JELEBU	

31.00 KUALA PILAH
32.00 PORT DICKSON
33.00 REMBAU
34.00 SEREMBAN
35.00 TAMPIN
36.00 BENTONG
37.00 CAMERON HIGHLANDS
38.00 JERANTUT
39.00 KUANTAN
40.00 LIPIS
41.00 PEKAN
42.00 RAUB
43.00 TEMERLOH
44.00 BUKIT METAJAM
45.00 BUTTERWORTH
46.00 NIBONG TEBAL
47.00 P.PENANG TIMUR LAUT
48.00 P.PENANG BARAT
49.00 BATANG PADANG
50.00 DINDING
51.00 KINTA
52.00 KERIAN
53.00 K.KANGSAR
54.00 LARAUT DAN MASANG
55.00 HILIR PERAK
56.00 HULU PERAK
57.00 PERLIS
58.00 KELANG
59.00 KUALA LANGAT
60.00 KUALA LUMPUR
61.00 KUALA SELANGOR
62.00 SABAK BERNAM
63.00 ULU LANGAT
64.00 ULU SELANGOR
65.00 BESUT
66.00 DUNGUN
67.00 KEMAMAN
68.00 KUALA TRENGGANU
69.00 MARANG
70.00 ULU TRENGGANU

URBAN 3

1 METRO
2 LARGE URBAN
3 OTHER URBAN
4 RURAL

AGE 4

HAGE HUSBANDS AGE 5

RELHH RELATIONSHIP TO HOUSEHOLD HEAD 6
0 HEAD OF HOUSEHOLD
1 SPOUSE
2 UNMARRIED CHILD
3 PARENT
4 SIBLING

5 OTHER REL-YOUNGER
6 OTHER REL-OLDER
7 NON-RELATIVES
8 VISITORS

MARSTAT MARITAL STATUS 7

1 NEVER MARRIED
2 MARRIED
3 WIDOWED
4 DIVORCED-SEPARATED

ETHNIC ETHNICITY 8

ETHNIC1 RECODED ETHNICITY 9

1.00 MALAY
2.00 CHINESE
3.00 INDIAN
4.00 OTHER

RELIGION 10

1 ISLAM
2 HINDU
3 CHRISTIAN
4 BUDDHIST
5 NO RELIGION
6 OTHER

CITIZEN 11

1 MALAYSAIN
2 NON-MALAYSIAN
9 UNKNOWN

HILEVEL EDUCATIONAL ATTAINMENT 12

1 NO EDUCATION
2 SOME PRIMARY
3 COMPLETE PRIMARY
4 FORM 1-2
5 FORM 3-NO LCE
6 LCE
7 FORM 4
8 FORM 8-NO SC
9 SC
10 FORM 6-LOWER
11 FORM 6-NO HSC
12 HSC
13 TERTIARY-NO DEGREE
14 UNIVERSITY DEGREE

HHILEVEL HUSBANDS EDUCATIONAL ATTAINMENT 13

1 NO EDUCATION
2 SOME PRIMARY

```
          3    COMPLETE PRIMARY
          4    FORM 1-2
          5    FORM 3-NO LCE
          6    LCE
          7    FORM 4
          8    FORM 8-NO SC
          9    SC
         10    FORM 6-LOWER
         11    FORM 6-NO HSC
         12    HSC
         13    TERTIARY-NO DEGREE
         14    UNIVERSITY DEGREE

LIT       LITERACY                                          14

          1    LITERATE
          2    SEMI-LITERATE
          3    ILLITERATE

HLIT      HUSBANDS LITERACY                                 15

          1    LITERATE
          2    SEMI-LITERATE
          3    ILLITERATE

POB       PLACE OF BIRTH                                    16

          1    JOHOR
          2    KEDAH
          3    KELANTAN
          4    MELAKA
          5    NEGRI SEMBILAN
          6    PAHANG
          7    PENANG
          8    PERAK
          9    PERLIS
         10    SELANGOR
         11    TRENGGANU
         12    SABAH
         13    SARAWAK
         14    STATE UNKNOWN
         15    OUTSIDE MALAYSIA
         16    UNKNOWN

LIVEMAL   TIME LIVED IN MALAYSIA                            17

          1    LESS THAN 1 YEAR
          2    1 YEAR
          3    2 YEARS
          4    3 YEARS
          5    4 YEARS
          6    5 YEARS
          7    6+ YEARS
          9    UNKNOWN

LIVLOC    TIME LIVED IN LOCALITY                            18
```

1 LESS THAN 1 YEAR
2 1 YEAR
3 2 YEARS
4 3 YEARS
5 4 YEARS
6 5 YEARS
7 6+ YEARS
9 UNKNOWN

MARDUR MARITAL DURATION 19

100 NEVER MARRIED
101 UNKNOWN

MARNUM NUMBER TIMES MARRIED 20

0 NEVER MARRIED
1 ONCE
2 2 OR MORE

OCC OCCUPATION 21

997 INADEQAUTELY DESCRIBED
998 NOT STATED
999 NOT IN LABOR FORCE

HOCC HUSBANDS OCCUPATION 22

997 INADEQAUETLY DESCRIBED
998 NOT STATED
999 NOT IN LABOR FORCE

IND INDUSTRY 23

HIND HUSBANDS INDUSTRY 24

USACT USUAL ACTIVITY 25

1 EMPLOYER-SELF-EMPLOYED
2 EMPLOYEE
3 FAMILY WORKER
4 HOUSEWORK
5 STUDENT
6 OTHER

HUSACT HUSBANDS USUAL ACTIVITY 26

1 EMPLOYER-SELF-EMPLOYED
2 EMPLOYEE
3 FAMILY WORKER
4 HOUSEWORK
5 STUDENT
6 OTHER

USIND USUAL INDUSTRY 27

0 NOT APP-NOT STATED

	1 PADI	
	2 LOGGING-TIMBER	
	3 FISHING	
	4 RUBBER	
	5 OTHER AGRICULTURE	
	6 MANUFACTURING-CONSTRUCTION	
	7 COMMERCE	
	8 TRANSPORT-COMMUNICATION	
	9 SERVICES	
	10 OTHER	
HUSIND	HUSBANDS USUAL INDUSTRY	28
	0 NOT APP-NOT STATED	
	1 PADI	
	2 LOGGING-TIMBER	
	3 FISHING	
	4 RUBBER	
	5 OTHER AGRICULTURE	
	6 MANUFACTURING-CONSTRUCTION	
	7 COMMERCE	
	8 TRANSPORT-COMMUNICATION	
	9 SERVICES	
	10 OTHER	
ACT	ACTIVITY	29
	0 NOT APP-UNKNOWN	
	1 EMPLOYED	
	2 UNEMPLOYED	
	3 NOT IN LABOR FORCE	
HACT	HUSBANDS ACTIVITY	30
	0 NOT APP-UNKNOWN	
	1 EMPLOYED	
	2 UNEMPLOYED	
	3 NOT IN LABOR FORCE	
FAMBUS	HELP IN FAMILY BUSINESS	31
	0 NOT APP-NOT STATED	
	1 YES	
	2 NO	
HFAMBUS	HUSBAND HELP IN FAMILY BUSINESS	32
	0 NOT APP-NOT STATED	
	1 YES	
	2 NO	
WKSTAT	WORK STATUS	33
	0 NOT IN LF-NOT STATED	
	1 EMPLOYER	
	2 EMPLOYEE	
	3 SELF-EMPLOYED	

4 FAMILY WORKER
5 LOOKING FOR FIRST JOB

HWKSTAT	HUSBANDS WORK STATUS	34

0 NOT IN LF-NOT STATED
1 EMPLOYER
2 EMPLOYEE
3 SELF-EMPLOYED
4 FAMILY WORKER
5 LOOKING FOR FIRST JOB

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CS	CHILDREN STILL LIVING	36
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0 NO HUSBAND MATCH
1 HUSBAND MATCH

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NKIDS	NUMBER OF MATCHED CHILDREN	39
NUKIDS	NUMBER OF UNMATCHED CHILDREN	40
C1	AGE OF IST MATCHED CHILD	41
C2	AGE OF 2ND MATCHED CHILD	42
C3	AGE OF 3RD MATCHED CHILD	43
C4	AGE OF 4TH MATCHED CHILD	44
C5	AGE OF 5TH MATCHED CHILD	45
C6	AGE OF 6TH MATCHED CHILD	46
C7	AGE OF 7TH MATCHED CHILD	47
C8	AGE OF 8TH MATCHED CHILD	48
UC1	AGE OF IST UNMATCHED CHILD	49
UC2	AGE OF 2ND UNMATCHED CHILD	50
UC3	AGE OF 3RD UNMATCHED CHILD	51
UC4	AGE OF 4TH UNMATCHED CHILD	52
UC5	AGE OF 5TH UNMATCHED CHILD	53
UC6	AGE OF 6TH UNMATCHED CHILD	54
UC7	AGE OF 7TH UNMATCHED CHILD	55

UC8	AGE OF 8TH UNMATCHED CHILD	56
UC9	AGE OF 9TH UNMATCHED CHILD	57
UC10	AGE OF 10TH UNMATCHED CHILD	58
UC11	AGE OF 11TH UNMATCHED CHILD	59
UC12	AGE OF 12TH UNMATCHED CHILD	60
UC13	AGE OF 13TH UNMATCHED CHILD	61
UC14	AGE OF 14TH UNMATCHED CHILD	62
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OURB70	1970 PROPORTION IN AREAS 1000 TO 9999	78
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IM80	1978	INFANT MORTALITY RATE	94
METRO80	1980	PROPORTION IN AREAS 75000 AND ABOVE	95
LURB80	1980	PROPORTION IN AREAS 10000 TO 74999	96
OURB80	1980	PROPORTION IN AREAS 1000 TO 9999	97
RURAL80	1980	PROPORTION IN AREAS 999 OR LESS	98
CA80	1980	NUMBER OF FP CLINICS PER 100 SQ KMS	99
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Note: Position refers not to a column number but to the order of the SPSSX system file