

THE PATTERN AND LEVELS OF
MORTALITY FOR THE 1975 - 1977 INDONESIAN
SAMPLE VITAL REGISTRATION
PROJECT AREA

BY
PONIMAN SUHARTONO

A THESIS SUBMITTED IN PARTIAL FULFILMENT
FOR THE DEGREE OF MASTER OF ARTS IN DEMOGRAPHY.

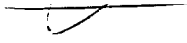
DEPARTMENT OF DEMOGRAPHY
RESEARCH SCHOOL OF SOCIAL SCIENCES
AUSTRALIAN NATIONAL UNIVERSITY

APRIL 1980

DECLARATION

EXCEPT WHERE OTHERWISE INDICATED,
THIS THESIS IS MY OWN WORK.

APRIL, 1980


PONIMAN SUHARTONO

M.A. DEMOGRAPHY PROGRAM
DO NOT REMOVE

DEDICATED TO

E. Harliani, P. Harianto and T. Harlianti



ACKNOWLEDGEMENTS

I express my sincere appreciation to my supervisor Dr. S.K. Jain for his easy accessibility, constructive comments and guidance which contributed greatly to this work.

Special thanks go to Dr Peter F. McDonald and Dr. Terence H. Hull for their useful suggestions, comments and encouragement throughout the different stages of this thesis. I am thankful to Mr. Peter Gardiner and Jenny Widdowson in helping the data processing. I sincerely appreciate of Mrs. Brigid Ballard and Mrs. Barbara McDonald for their encouragement and guidance through the draft for correcting the grammar and the style of my English writing. I am also grateful to Dr. D.W. Lucas, Ms. Tania Sherlaimoff and fellow students of the M.A. Program in Demography for their encouragement.

Special thanks also go to Mrs. Pat Ashman for her excellent secretarial assistance during my course. I wish to thank Mrs P.H. Quiggin, and the staff of the Menzies Library for their assistance in finding some references which I needed for this study.

I would like to thank the Australian Government who offered me a fellowship to participate in the Australian National University, and the Indonesian Central Bureau of Statistics for permission to study in Australia To A.D.A.B. officers, especially to Mr. Jeff Chandler and Ms. Dawn Beresford Wylie, I wish to express my appreciation for their assistance during my stay in Australia.

Mr. Abdulmadjid and Mr. Sugito from the Indonesian Central Bureau of Statistics, were always sources of encouragement through their letters, my thanks also go to them.

Finally, my sincere gratitude goes to my wife, Suryani, for her assistance in typing the draft, and also continuous for her support and patience during the preparation and completion of this thesis.

Canberra, April, 1980.

Poniman Suhartono.

ABSTRACT

The aim of this thesis is to estimate the levels and patterns of mortality in each Area of the 1975-1977 Indonesia Sample Vital Registration Project, based on the "observed" and the "adjusted" mortality data by age, where the adjustment factors in each Area are derived for each age group by applying the Chandra-Deming technique,

In relation to the adjustment factors by "age" there is a considerable variation between Area, sexes and years. The higher area for younger ages, whereas the lower factors are for older ages.

There are differentials in mortality levels between sexes, urban-rural areas and Survey years. The male mortality exceeds that of females. In most cases, the mortality of rural areas is higher than urban areas, and the mortality of the second year is slightly higher than the third year.

There is a still difference in mortality patterns between sexes and urban-rural areas. But the latter is probably due to the small number of deaths reported in each year. In general, the mortality patterns for both males and urban areas are smoother and more plausible than for those of females and rural areas, respectively.

The 1975-1977 SVRP shows a mortality pattern under age 10 very similar to that of West Model at mortality level 14.0 for both sexes. In the middle age range the West Model seems to depict a higher mortality than observed. On the other hand, the reverse is true at old ages.

Even if both the systems - Registration and Survey - are deficient, the estimates derived by the application of the Chandra-Deming procedure yield plausible mortality level, a Crude Death Rate for both sexes of 12.1 per thousand population and an expectation of life at birth 49.6 for males and 52.5 for females.

Contents

	Pages
Chapter I : Introduction	1 - 12
1.1. General	1
1.2. Historical background of the previous studies of the estimation levels and patterns of mortality in Indonesia.	2 - 3
1.3. The background of the Indonesian Sample Vital Registration Project (SVRP), 1974 - 1977.	3 - 7
1.4. The objective of the Study.	7 - 8
1.5. Methodology of the Study.	8 - 11
1.6. Organization of the Study.	12
Chapter II. Observed levels and patterns of mortality.	13 - 41
2.1. Data on age at death.	13 - 20
2.2. Data on Base Population.	20 - 28
2.3. Crude Death Rate.	28 - 31
2.4. Age Specific Death Rates.	31 - 36
2.5. Discussion.	36 - 41
Chapter III. Adjusted levels and patterns of mortality.	42 - 82
3.1. Matching procedure.	42 - 46
3.2. Results of matching.	46 - 60
3.3. Adjusted factors.	61
3.4. Analysis of adjustment factors.	61 - 64
3.5. Adjusted Life Tables.	64 - 66
3.5.1. Probability of dying, ${}_nq_x$	66 - 71
3.5.2. Expectation of life ${}_e o_x$	72 - 77
3.6. Discussion.	77 - 82

Contents

	Pages
Chapter IV. A Comparison of the various mortality estimates derived elsewhere and the present study.	83 - 96
4.1. A Comparison of the probability of dying, nq_x	83 - 91
4.2. A Comparison of the expectation of life, ${}^o e_x$	92 - 94
4.3. A Comparison of the Crude Death Rate	95 - 96
Chapter V. Conclusion	97 - 99
<u>References</u>	100 - 104

List of Tables

Table	Pages
1.1. Delineation of Sample Areas, estimated Sample Size, and estimated number of personnel, for the 1974 - 1977 Sample Vital Registration Project.	4
1.2. Possibilities of deaths recorded in the Survey and Registration.	9
2.1. Status codes and classifications for persons recorded by the Semi - Annual Survey.	13 - 17
2.2. Number and percentages of observed deaths by age, sex, Survey year and Project - area of the Sample Vital Registration.	19
2.3. Calculation of mid-year population by Project - area in the second and third years from results of Semi - Annual Survey.	22 - 24
2.4. Number and percentages of population by age, sex, Survey year and Project - area of the results of Semi Annual Survey.	27
2.5. Calculation of Unadjusted Crude Death Rates by Survey year and Project - area of the results of Semi Annual Surveys.	30
2.6. Unadjusted Age Specific Death Rates per Centre by selected age groups, sex and Survey year of the 1975 - 1977 SVRP.	32 - 34
2.7. A comparison of cumulative percentages of population distribution from the 1975 - 1977 SVRP and the 1971 Population Census and the 1976 Intercensal Survey.	38
2.8. Unadjusted Childhood Mortality Rates of age 1 - 4 by sex, Survey year and Project - area, per 1000 population for the 1975-1977 Sample Vital Registration Project.	40
3.1.A. The Characteristics of field Matching for the second and third year of the 1975 - 1977 SVRP.	43
3.1.B. Determination of matches, questionable matches and non-matches before verification.	44
3.2.A. Observed deaths and percentages of four category of Chandra - Deming technique by age, sex and Area for the second Survey Year.	47 - 48

List of Tables

Table	Pages
3.2.B. Observed deaths and percentages of four categories of Chandra - Deming technique by age, sex and Area for the third Survey year.	49 - 50
3.2.C. Observed deaths and percentages of four Categories of Chandra - Deming technique by age, sex and Area for the second and third years.	51 - 52
3.2.D. A Comparison of the percentages of four Categories of Chandra - Deming technique for both sexes by country and year.	54
3.2.E. Expected number of deaths and percentages of the under enumeration of Survey and Registration by age, sex and Area for the second Survey year.	56
3.2.F. Expected number of deaths and percentages of under enumeration of Survey and Registration by age, sex and Area for the third Survey year.	57
3.2.G. Expected number of deaths and percentages of under enumeration of Survey and Registration by age, sex and Area for the third Survey year.	58
3.3. Adjustment factors for deaths by age, sex, Survey year and Area of the Sample Vital Registration Project 1975 - 1977.	59 - 60
3.4. Range of adjustment factors by broad age groups.	62
3.5.A. Probability of dying, nq_x , by age, sex, Survey year and adjustment for urban Area I of the 1975 - 1977 SVRP.	69
3.5.B. Probability of dying, nq_x , by age, sex, Survey year and adjustment for rural Area II of the 1975 - 1977 SVRP.	70
3.5.C. Probability of dying, nq_x , by age, sex, Survey year and adjustment for rural Area III of the 1975 - 1977 SVRP.	71

List of Tables

Table		Pages
3.5.D.	Expectation of life $^o e_x$, by age, sex, Survey year and adjustment for urban Area II of the 1975 - 1977 SVRP.	73
3.5.E.	Expectation of life, $^o e_x$, by age, sex, Survey year and adjustment for rural Area II of the 1975 - 1977 SVRP.	74
3.5.F.	Expectation of life, $^o e_x$, by age, sex, Survey year and adjustment for rural Area III of the 1975 - 1977 SVRP.	75
3.5.G.	Average of the expectation of life for the second and third years of the SVRP by age, sex and Area.	76
3.5.H.	Adjusted probability of dying, ${}_n q_x$, of the 1975 - 1977 SVRP by age, Area and Survey year for males.	78
3.5.I.	Adjusted probability of dying, ${}_n q_x$, of the 1975 - 1977 SVRP by age, sex and Survey year for females.	79
4.1.A.	Probability of dying, ${}_n q_x$, for females from various studies.	88
4.1.B.	Probability of dying ${}_n q_x$, for females from various studies.	89
4.2.A.	A comparison of the expectation of life, $^o e_x$, of the 1975 - 1977 SVRP area with other studies.	93
4.2.B.	A comparison of the expectation of life, $^o e_x$, of the 1975 - 1977 SVRP area with other studies.	94
4.3.	A Comparison of the Crude Death Rates.	95

List of Figures

	Page
Figure 1. Sample Vital Registration Project Area in Indonesia, 1974 - 1977.	5
Figure 2. Patterns of matched deaths by age, sex and Area for the second and third years of the 1975 - 1977 SVRP.	53
Figure 3. Patterns of probability of dying, ${}_nq_x$, in various Areas of the 1975 - 1977 SVRP for the combination of the second and third years for males.	80
Figure 4. Patterns of probability of dying, ${}_nq_x$, in various combination of the second and third years for females.	81
Figure 5. Patterns of probability of dying, ${}_nq_x$, in various studies for males.	85
Figure 6. Patterns of probability of dying, ${}_nq_x$, in various studies for females.	86

List of Appendixes

	Pages
<u>Appendix I.</u>	105 - 109
I.1. Calculation of unadjusted Age Specific Death Rates per Centre by age and sex in the second year of the 1975 - 1977 SVRP.	105 - 106
I.2. Calculation of unadjusted Age Specific Death Rates per Centre by age and sex in the third year of the 1975 - 1977 SVRP.	107 - 108
I.3. Number of deaths by sex, Survey-year and the calculation age in the 1975-1977 SVRP.	109
<u>Appendix II.</u>	110 - 114
II.1. Population data.	110
II.2. Observed death data.	111
II.3. Adjusted death data.	112
II.4. Observed death rates.	113
II.5. Adjustment factor data.	113
II.6. Adjusted death rates.	114
<u>Appendix III. Unadjusted Life Tables.</u>	115 - 122
<u>Appendix IV. Adjusted Life Tables by the " age "</u>	123 - 130
<u>Appendix V. Adjusted Life Tables by the " total "</u>	131 - 138

CHAPTER I.

INTRODUCTION

1.1. General

The acquisition of statistical data is often an arduous and expensive task but the establishment of a good national development programme may prove to be even more difficult and expensive without such data. A special programme can only be achieved successfully if it is both perfectly planned and supported with quantitative and qualitative data. As the function of statistics is to assist the other sciences such as the social sciences, economics, politics, physics etc, the reliability of the statistical data is absolutely essential. Up-to-date and reliable demographic data is thus necessary to support policy and decision-makers in their planning.

Attempts to study recent mortality in Indonesia have been hampered by the lack of accurate and reliable data on mortality because the Vital Registration has not been properly carried out in most parts of the country. One effort to improve the collection of Vital Registration data was piloted in 1974-1977 (Central Bureau of Statistics : 1974, 1976, 1976/1977 and 1978 ^{a)}), but it will be some time before Indonesia has reasonably accurate and reliable data from Vital Registration.

As the Government has been recently planning the third five-year National Development Programme (1979-1983), an accurate and up-to-date estimation of the current and future vital statistics such as current patterns and levels of mortality and fertility is essential in the formulation of a sound national development plan.

1.2. Historical background of the previous studies of the estimation of levels and patterns of mortality in Indonesia.

Until recently, it has not been possible to reach common agreement concerning the levels and patterns of mortality in Indonesia. This fact can be seen by examining the differing results of some previous studies.

Before 1971, work on estimating levels of mortality in Indonesia had been generally focussed on the application of indirect data techniques and estimation of appropriate Life Tables. Kanisto (1963), using the 1971 Population Census and the 1962 Population Survey, estimated that the Crude Death Rate of Indonesia in 1962 was 21.4 per 1000. By using the 1963 Population Survey, Kozo Ueda (1965) estimated that the Crude Death Rate was 19.0 per 1000.

Since 1971, various researchers have made estimates of levels and patterns of mortality in Indonesia based on a variety of methods and sources. Singufield and Kartoyo (1977) estimated the infant and childhood mortality based on the retrospective deaths occurring in the 12 months period prior to the 1973 Fertility-Mortality Survey. Heligman (1976) estimated levels and trends of mortality in Indonesia by applying census survival techniques to data from the 1961 and 1971 Population Censuses. McDonald et.al (1976) estimated levels and trends of childhood mortality by using the pregnancy history data from the 1973 Fertility-Mortality Survey. McDonald (1978) also predicted the adult mortality based on the 1961 and 1971 Population Censuses and the 1976 Intercensal Population Survey by using three methods : parental survival techniques, intercensal survival techniques and direct estimation from deaths by age and sex for a fixed retrospective period as recorded in the 1976

Intercensal Population Survey. Hull and Sunaryo (1978) estimated levels and trends of infant and childhood mortality in Indonesia based the Brass method which was obtained from the 1971 Population Census and the 1976 Intercensal Population Survey. Gardiner (1978) estimated the age pattern of mortality in Indonesia based on direct mortality data which was obtained in the Indonesian Sample Vital Registration Project 1974-1977. The results of the above studies will be discussed in Chapter Four.

1.3. The background of the Indonesian Sample Vital Registration Project (SVRP), 1974-1977.

During 1972 and 1973, the need to improve and develop existing Vital Registration in Indonesia was recognized in order to estimate more reliable and up-to-data vital rates. Under the auspices of the Central Bureau of Statistics (BPS) and the National Family Planning Board (BKKBN) a final project proposal was drawn up and approved in Juli 1973. Technical advice was provided by the United Nations headquarters, the United Nations Economic and Social Commission for Asia and Pacific, the World Bank and the International Program of Laboratories for Population Statistics (POPLAB) of the University of North Carolina, and a number of institutes concerned with the collection, processing and analysis of vital statistics including the Department of Interior, the Department of Health, the Department of Justice and the National Institute of Economic and Social Research (LEKNAS) were consulted (Central Bureau of Statistics : 1974, 1976, 1976/1977, 1978 ^{a)}).

The primary goals of the Project ¹⁾ were :

1. To assess the completeness of existing Vital Registration in Indonesia, to investigate reasons for non-declaration of vital events and to

1). Within this text " Project " refers to the Indonesia sample Vital Registration Project, 1974-1977.

TABLE. 1.1. DELINEATION OF SAMPLE AREAS, ESTIMATED SAMPLE SIZE, AND ESTIMATED NUMBER OF PERSONNEL FOR SAMPLE VITAL REGISTRATION

No.	Province	Kabupaten/ Kotamadya (District)	Kecamatan (Sub-district)	Total Villages			Total Number of Census Blocks Included in Survey	Total Population of Sample Blocks (1971 Census)	Survey Personnel			Registration Person			Personnel for Matching of Survey and Registration Documents	Instructors
				Total	Included in Registration	Included in Survey			Enumerators	Supervisors	Total	Registrars	Supervisors	Total		
1.	North Sumatra	Tapanuli Teng.	Sorkam	57	57	45	65	16 934	23	8	31	57	7	64	4	2
2.	DKI Jakarta	Jakarta Barat	Tamansari	8	1	2 RW	23	4 367								
		Jakarta Pusat	Kemayoran	5	1	2 RW	34	8 194								
		Jakarta Timur	Kramat Jati	11	1	2 RW	14	3 379	47	16	63	10	5	15	8	2
		Jakarta Selatan	Pasar Minggu	10	1	2 RW	23	5 790								
		Jakarta Utara	Kota	11	1	2 RW	37	6 259								
		West Java	Cirebon (Kod.)	3	3	3	115	32 035	40	13	53	3	3	6	7	2
		West Java	Sukabumi (Kab.)	4	4	4	61	31 421	22	7	29	4	4	8	4	1
		Central Java	Pekalongan	12	12	12	42	21 178	17	5	22	12	12	24	3	1
		East Java	Malang	13	13	13	108	45 267	37	12	49	13	13	26	6	2
		Bali	Klungkung	13	13	11	83	25 131	29	10	39	13	13	26	5	2
8.	West Nusa-Tenggara	Lombok Barat	Mataram	7	7	1	33	8 560	12	4	17	14	7	21	2	1
9.	South Kalimantan	Banjar	Sungai Pinang	7	7	7	25	5 153	10	39	13	13	26	5	2	1
10.	South Sulawesi	Bone	Cina	6	6	6	67	16 750	24	8	32	6	6	12	4	1
Total				167	127	112 ¹⁾	730	230 418	261	86	347	139	77	216	45	15

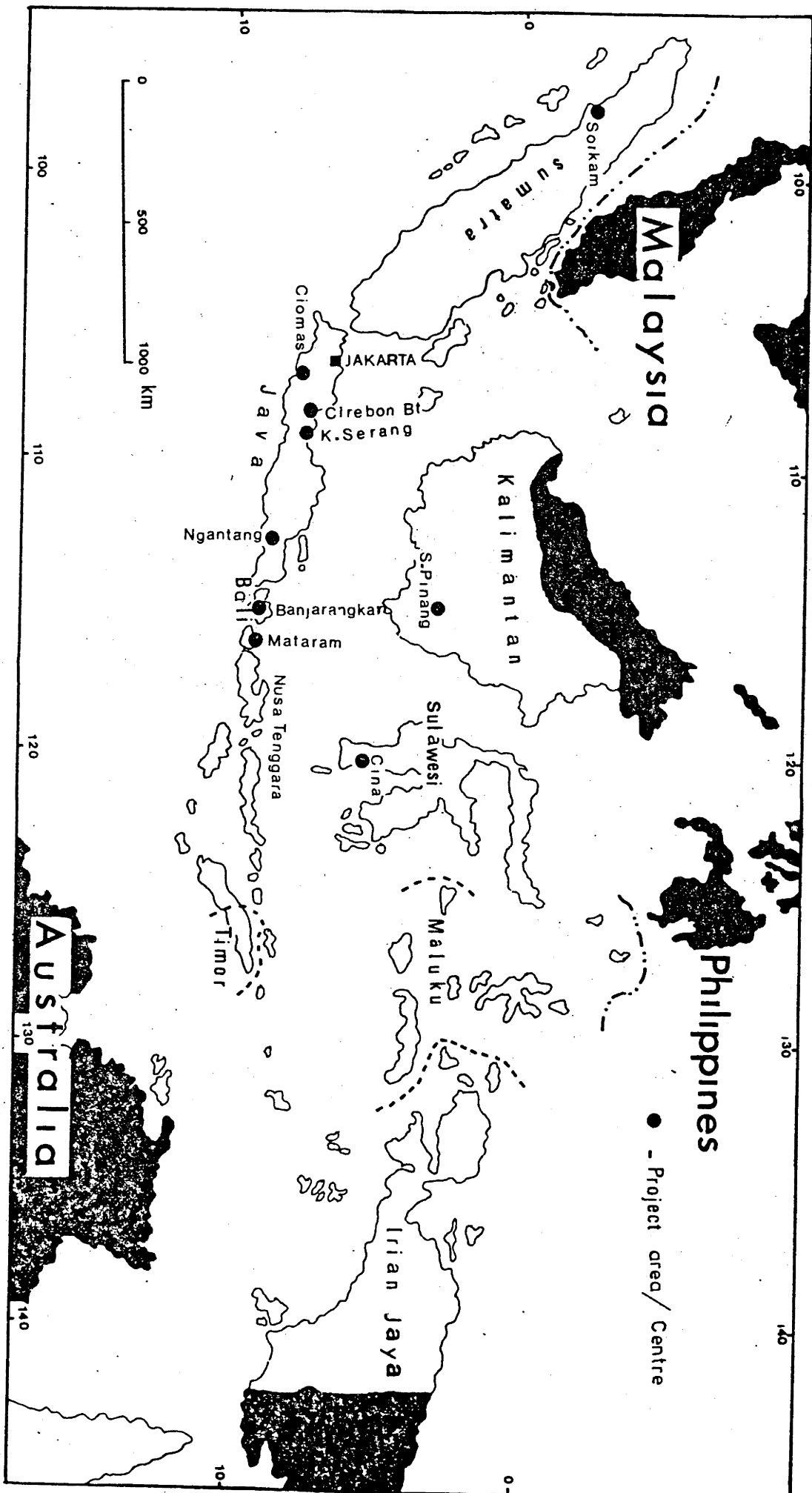
1) 102 villages and 10 RW (Sub - Villages)

Source : Organization and methods of the Indonesian Sample Vital Registration Project.

Central Bureau of Statistics, September 1974. Jakarta,

Appendix : III.

Figure 1. Sample Vital Registration Project Areas in Indonesia, 1974-1977.



- develop improved methods of Vital Registration, and
2. To the extent that the sample allowed, to obtain reliable estimates of fertility, mortality and population growth (Central Bureau of Statistics : 1974, p : 8).

The Project commenced in July of 1974 and was conducted in ten widely dispersed Project-areas or " Centres " in Indonesia. These Centres except for Jakarta, (where the Centres were all Sub-District or Kecamatan) were intentionally selected as being representative of diverse social, cultural and socio-economic conditions. Five of these Centres were in Java (one urban area and four rural areas) and five were outside Java (one urban area and four rural areas) in the Province of North Sumatra, South Kalimantan, South Sulawesi, Bali and West Nusa Tenggara (See Table 1.1 and Figure 1)

The basic approach of the Project was the combination of continuous Vital Registration with an independent Semi-annual Survey. Subsequent to the Base-line Survey which was carried out in July 1974, Surveys ²⁾ were conducted every six months over a two week period. The Survey recorded any changes in composition of the household member, for example, birth, death or migration through the previous six months. During the Project period, 1st July of 1974 to 30th June of 1977, Vital Registration was also maintained continuously, particularly in the registration of births, deaths, still births and migration which occurred

2). " Survey " refers to the Semi-annual Survey which was conducted regularly every six months to record any changes in composition of household members over the previous six months.

among the usual residents in all Centres. Every week or at least once a fortnight, Registration ³⁾ documents were sent for initial processing to a Centre which was set up to coordinate the Survey and Registration. Questionnaires from the Survey were also sent to the Centre every six months where manual Matching using the Chandra-Deming technique (Chandra Sekhar and Deming, 1949 ; pp 101-115) of the vital events recorded in the Survey and reported in the Registration took place.

1.4. The objective of the study

Many studies on the estimation levels of mortality in Indonesia have already been completed, but, so far, no attempt has been made to estimate levels and patterns of mortality on the basis of age specific mortality data adjusted by Chandra-Deming technique. Peter Gardiner (1978) adjusted the mortality data by an over-all adjustment factor rather than different adjustment factors various ages based on Chandra - Deming technique.

In this study, use was made of direct mortality data base on the Indonesian Sample Vital Registration Project carried out by the Central Bureau of Statistics between 1974-1977. The aim of this study is to estimate the levels and patterns of mortality in each Centre or in each Area ⁴⁾ during 1975-1977, based on both the " observed " and the " adjusted " mortality data by age. The " adjustment " factor in each Area are derived for each age (age group) by applying the Chandra-Deming technique.

3). Registration refers to the Vital Registration which was maintained continuously from 1st of 1975 to 30th June of 1977.

4). One Area consists of several Centres (Project-areas) which have more or less similar levels of mortality or similar quality of Registration or Survey. The classification of the Area will be shown in the latter section of Chapter Two.

Only the mortality data for a two year period of observation has been used (1975-1977) for the following reasons :

1. The first year Surveys (1974/1975) enumerated population in the de-facto basis, which was different from the second and third Surveys; the coverage of the population in the first year therefore did not correspond with the Registration population which was derived from de-jure basis.
2. A less rigorous criterion for the acceptability of matches was used in the second and third years, because the strict Matching rules which applied during the first year, resulted in an inefficient use of resources.
3. There was a problem of documentation for the first year, as the Central Bureau of Statistics only processed the Matching of deaths by single age for a two-year period of observation 1975-1977.

1.5. Methodology of the study

In conjunction with the aim of the study, use has been made of the Chandra-Deming technique which requires two independent data collection systems of vital events i.e., the Semi-annual Survey and the Vital Registration. It was therefore necessary, to compare and match the deaths recorded by each system. When Matching was completed, three categories could be distinguished (see Table 1.2) as follows :

1. The deaths which are recorded by both systems (C).
2. The deaths which are only recorded in the Survey (N_1).
3. The deaths which are only recorded in the Registration (N_2).

To these categories was added a fourth category to cover the unknown number of deaths which are not observed by either systems (X)

The fourth category will be estimated latter by applying the Chandra-Deming technique (Chandra Sekhar and Deming, 1949, p : 102 and Seltger and Adlakh, 1974, p : 3).

Table : 1.2. Possibilities of deaths recorded in the Survey and Registration.

		S U R V E Y		
		Recorded	Not Recorded	Total
RE- GIS- TRA- TION	Recorded	C	N_2	$C + N_2$
	Not Recorded	N_1	X	$N_1 + X$
	Total	$C + N_1$	$N_2 + X$	N

As the Survey and Registration covered the same geographic area in the same period, the verification of the "questionable matched" and "non-matched" vital events (that is, death) was obtained in the field. Furthermore, as both systems were carried out independently, the project had fulfilled the three necessary conditions of the Chandra-Deming technique, thus enabling an unbiased estimate of the actual number of vital events (Seltzer and Adlakha, 1974, pp : 3-8).

To estimate the actual number of deaths or the "expected"⁵⁾ deaths (N) in a particular Area over a specified period, a formula can be employed :

$$N = C + N_1 + N_2 + \frac{N_1 N_2}{C}$$

Where : N = an unbiased estimate of the actual number of deaths, N.

$$\frac{N_1 N_2}{C} = X, \text{ the expected deaths which are not observed by}$$

either system.

If we apply the above formula to a specific age group (j) for a specific project-area (i), the formula would be :

$$N_{ij} = C_{ij} + N_{lij} + N_{2ij} + \frac{N_{lij} N_{2ij}}{C_{ij}}$$

Where : i = Project-area / Centre

j = Age-group (j)

N_{ij} = An unbiased estimate of the actual number of deaths in Centre (i), in age-group (j)

$$\frac{N_{lij} N_{2ij}}{C_{ij}} = X_{ij}, \text{ the expected number of unrecorded deaths which are not observed by either systems in Centre (i), in age-group (j).}$$

The " adjustment factor " f'_{ij} of deaths in the Survey for a specific age-group (j) in Centre (i) for each Survey year can be calculated as follows :

$$f'_{ij} = \frac{N_{ij}}{C_{ij} + N_{lij}}$$

The " adjustment factor : f'_{ij} of deaths in the Registration for a specific age-group (j) in Centre (i) for each Survey year can also be calculated as follows :

$$f'_{ij} = \frac{N_{ij}}{C_{ij} + N_{2ij}}$$

The " adjustment " f_{ij} of the "observed" deaths (that is, for both Survey and Registration) for a specific age-group (j) in Centre (i) for each Survey year would then be calculated as follows :

$$f_{ij} = \frac{N_{ij}}{C_{ij} + N_{1ij} + N_{2ij}}$$

The under enumeration of deaths in the Survey for a specific age-group (j) in Centre (i) for each Survey year can be obtained as.

$$1 - \frac{1}{f'_{ij}}$$

Similarly, the under enumeration of deaths in the Registration for a specific age-group (j) in Centre (i) for each Survey year is equal to :

$$1 - \frac{1}{f''_{ij}}$$

The under enumeration of " observed " deaths for a specific age-group (j) in Centre (i) for each Survey year will be :

$$1 - \frac{1}{f_{ij}}$$

6). In this text, the " observed " deaths = $C + N_1 + N_2$.

1.6. Organization of the study

Having given the objectives and conditions assumed, we give here an outline of the study. In Chapter Two, we present the observed levels and patterns of mortality for the 1975-1977 SVRP, with a view that this would aid the understanding of the outcome of the numerical illustrations in the study. Then the main results of the study are presented in Chapter Three.

An examination of the adjusted levels and patterns of mortality within the 1975-1977 SVRP area using the Chandra-Deming technique is provided in Chapter Three, which consists of the description of Matching procedures, results of Matching, adjustment factors, analysis of adjustment factors both by the "age" and the "total" and adjusted Life Tables.

Chapter Four is concerned with the comparison of the levels and patterns of mortality for this study with various mortality estimates derived elsewhere such as the 1971 and 1973 Indonesia figures, the 1974-1977 SVRP adjusted by the "total" and the west Model at mortality level 14.0. This comparison is especially done for the analysis of the values of probability of dying (${}_nq_x$), expectation of life (${}^0e_x$) and Crude Death Rate.

Finally, the conclusion of this study is presented in Chapter Five, which includes the summary of the mortality levels and patterns within individual areas and the whole area of the 1975-1977 SVRP.

CHAPTER II

OBSERVED LEVELS AND PATTERNS OF MORTALITY

2.1. Data on age death.

The observed deaths which included the matched deaths in both systems, those recorded only in the Survey and those recorded only in the Registration were obtained only after the Matching of the events had been completed. The follow-up Surveys accorded a status code to each member of the household (Table 2.1.). Persons who were alive in the previous round and had subsequently died, those who were born and then died between the rounds, those who migrated into the sample area

Table 2.1. Status codes and classifications for persons recorded by the Semi-annual Survey.

Status Code	Classification	Description
1.	Living in Project-area	Resident of the Project - area during the entire year of the Survey. This included persons living in the same household throughout the year, persons who moved during the year but within the Project-area as defined for the Survey, and persons who moved out and returned into the Project - area during the year (e.g. were living in the area both at the

Status Code	Classification	Description
		time of Base-line and Second follow-up Survey)
2	Died	Resident of the Project-area as defined for the Survey who died during the one-year period.
3..	Live-born, still living	A baby born during the one-year period to a resident of the Project-area as defined for the Survey and who was recorded as still living in the Project-area in the second follow-up Survey.
4	Live-born, died	A baby born during the one-year period to a resident of the Project-area as defined for the Survey and who died during the year (e.g was recorded as born, died on the first or second follow-up Survey or as born on the first follow-up and died on the second follow-up Survey)..
5	Live-born moved out	A baby born during the one-year period to a resident of the Project-area as defined for the Survey and who subsequently moved out of the

Status Code	Classification	Description
		area (e.g was recorded as born-moved out on the first or second follow-up Surveys or as born on the first follow-up and moved out on the second follow-up Survey).
6	Moved-out	Resident of the Project-area as defined for the Survey at the time of Base-line Survey who subsequently moved-out of the area during the one-year period.
7	Moved in, still living	Person who moved in and established residence in the Project-area as defined for the Survey during the one-year period and was recorded as still resident in the area in the second follow-up Survey.
8	Moved in, died	Person who moved in and established residence in the Project-area as defined for the Survey during the one-year period and subsequently died while residing in the area (e.g was recorded as moved in-died on the first or second follow-up Survey or as moved in the first

Status Code	Classification	Description
		follow up and died on the second follow-up Survey).
9	Omitted by mistake	Resident of the Project-area as defined for the Survey who was in residence but missed by the Base-line Survey and subsequently enumerated in either the first or second follow-up Survey.
98	Include by mistake	A non-resident of the Project-area as defined for the Survey who was erroneously listed as a resident during the Base-line or first follow-up Survey, the error being detected on a subsequent round. This would include persons erroneously recorded during the Base-line Survey or persons born to a non-resident and erroneously recorded in the first follow-up Survey or persons recorded as moved in during the first follow-up who were actually guests or visitors. To simplify processing, persons recorded as

Status Code	Classification	Description
		"moved in" by the first follow-up and "moved out" by the second follow-up Survey were considered to have never established residence and were coded here.
99	no information	A person listed on the Base-line Survey for whom no subsequent information could be obtained.

Sources : Central Bureau of Statistics (1976, pp : 69-71; 1976/1977, p: 7 and 1978 ^{a)}, p: 11).

and died constituted the death data from the Surveys. On the other hand, the continuous Registration of the deaths between the rounds formed the registered deaths. The total observed deaths for a year were classified by sex and single years of age. For our analysis we have grouped them in broad age groups.

Table 2.2 shows the number and percentages of deaths by age, sex, Survey year and Project-area. Looking at the distribution of deaths by some broad age groups, it can be said that the percentage distribution of deaths varied among Project-areas, even between the two Survey years. For males age 0, the death distribution ranged between the lowest of 14 % (Ngantang, 2nd year) and the highest of 31 % (Sorkam, 3rd year). In age group 1-4, the death distribution ranged between the minimum of 7 % (Ngantang, 2nd year and Banjarangkan, both years) and the maximum of 28 %

(Mataram, 2nd year). In age group 5-19, the distribution were between the lowest of 4% (Mataram, 3rd year) and the highest of 21% (Sungai Pinang, 3rd year).

For females age 0, the death distributions ranged from the minimum of 15 % (Kandang Serang, 2nd year and Ngantang, both years) to the maximum of 40 % (Sorkam, 3rd year). In age group 1-4, the lowest was 6 % (Ngantang, 3rd year) and the highest was 28 % (Ciemas, 2nd year). In age group 5-19, the minimum and maximum of death distribution were 5 % (Sorkam, 3rd year) and 21 % (Sungai Pinang, 3rd year), respectively.

In the cumulative distribution for males for the ten Project-areas together, the percentages of death up to age 5 were 38 % and 39 % for the second and third years respectively; the lowest was 21 % (Ngantang, 2nd year) and the highest was 54 % (Mataram, 2nd year). The cumulative corresponding percentage up to age 20 was 50%; the minimum being 30 % (Ngantang, 2nd year) and the maximum 63 % (Mataram, 2nd year). For females, the percentages up to age 5 were 38 % and 36 % for the second and third years respectively, which the minimum being 21% (Ngantang, 3rd year) and the maximum being 55 % (Sorkam, 2nd year). The Cumulative percentages of death distributions up to age 20 were 49 % and 47 % for the second and third years respectively; the minimum being 27 % (Ngantang, 3rd year) and the maximum was 65 % (Ciemas, 2nd year). According to Hull and Sunaryo (1978, p : 44), in countries with high mortality rate, the percentages of deaths of children (aged 0-4) to the total deaths are usually over 50 %. Using This standard, in the case of the 1975-1977 Sample Vital Registration Project, the cumulative percentages of deaths up to age 5 were very low.

Table 2.2 Number and Percentages of deaths by Age, Sex, Survey Year and Project-area of the Sample Vital Registration Project, 1975-1977

			M A L E S					F E M A L E S						
No	Project-area/ Centre	Survey Year	Number of deaths	Percentages of death in age:				Number of deaths	Percentages of death in age:					
				0	1-4	5-19	Up to 5		Up to 20	0	1-4	5-19	Up to 5	Up to 20
1	Jakarta	2nd year	142	28	20	12	48	60	118	32	17	13	49	62
		3rd year	184	29	19	15	48	63	121	36	11	13	47	60
2	Cirebon Barat	2nd year	163	21	15	13	36	49	151	19	14	9	33	42
		3rd year	190	22	15	12	37	49	188	20	14	9	34	43
3	Clemas	2nd year	234	24	25	13	49	62	170	22	28	15	50	65
		3rd year	199	20	25	13	45	58	191	20	27	17	47	64
4	Kandang Serang	2nd year	222	17	17	14	34	48	230	15	17	13	32	45
		3rd year	198	20	21	11	41	52	181	20	19	9	39	48
5	Ngantang	2nd year	229	14	7	9	21	30	251	15	11	9	27	36
		3rd year	261	15	12	7	27	34	260	15	6	6	21	27
6	Sorkam	2nd year	150	22	23	10	45	55	114	30	25	9	55	64
		3rd year	114	31	21	11	52	63	84	40	13	5	53	58
7	Sungie Pinang	2nd year	56	16	21	9	37	46	54	15	18	11	33	44
		3rd year	62	16	18	21	34	55	52	17	14	21	31	52
8	Cina	2nd year	110	20	20	8	40	48	107	21	24	9	45	54
		3rd year	117	20	18	13	38	51	99	26	12	14	38	52
9	Banjarankan	2nd year	134	25	7	5	32	37	117	20	10	10	30	40
		3rd year	120	26	7	7	33	40	116	22	10	9	32	41
10	Mataram	2nd year	57	26	28	5	54	59	58	21	21	8	42	50
		3rd year	50	28	22	4	50	54	38	32	18	5	50	55
All centres			1497	21	17	11	38	49	1370	20	18	11	38	49
			1495	22	17	11	39	50	1330	22	14	11	36	47

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.

In most Project-areas, between the Survey years for both sexes, the variation in the cumulative percentages of deaths between the ten Project-areas decreased as the age increased (see Table 2.2). Memory and perhaps unwillingness to report on the part of the respondents could possibly account for such mis-reporting on age at death, and under enumeration of deaths. In Table 2.2, it is clear that under enumeration of deaths under age 5 for both sexes occurred more frequently in Cirebon Barat, Kandang Serang, Ngantang Sungai Pinang, Cina and Banjarangkan. It is argued that some of the 25 % of deaths which occurred outside the village of residence were not reported by the respondents. (Central Bureau of Statistics, 1976/1977, p: 113 and 1978 ^a , p: 140); It was perhaps confusing for respondents to take into account the concept of the "deaf-jure" residence which was used for the enumeration in the Survey and Registration. In particular, there was probably an incorrect statement on age at death of children age 4 which were more often reported as deaths at 5 years of age (CBS, 1977, unpublished report). The variation in the cumulative percentages of deaths between the ten Project-areas was also due to the small number of deaths and broad variation of the age structure of the population in each Project-area.

2.2. Data on Base Population

In order to obtain the appropriate denominator for the calculation of vital rates, we should obtain a total number of person-years lived during the year residents of the Project-area. In practice, this is never done even in the most sophisticated national vital statistics systems since the error introduced by the population in larger groups does not much effect the results. (Central Bureau of Statistics, 1976). In this study, the terminology of "base population" means the number of

people in a given Project-area to which specific vital rates apply-for example, the denominator of the Crude Death Rate or Crude Birth Rate (Marks & Seltzer, 1974 : 432). For this reason, the base population is computed as the mid-year population which is assumed to be approximately the same as the total number of person-years lived.

The 1975-1977 SVRP was conducted from 1-7-1974 to 30-6-1977. The computation of mid-year population for the second Survey year is as follows. The figures in brackets for the Jakarta Project-area illustrate the calculations (See Table 2.3) :

Population at the beginning of the Survey year =

Residents living at the end of Survey year as code 1 (28,703)

+ Residents who died during the Survey year as code 2 (203)

+ Residents who left the Project-area during the Survey-year as code 6 (2,848)

+ Residents living for the whole of Survey year mistakenly not enumerated at the beginning of the Survey year and found of the end of Survey year as code 9 (1,272) = 33,026.

Population at the end of Survey year =

Residents living at the end of Survey year who were also present at start of year as code 1 (28,703)

+ Children born during the Survey year and still alive at the end of Survey year as code 3 (1,016)

+ Immigrants during the Survey year as code 7 (2,044)

+ Residents living for the whole of Survey year but mistakenly excluded at the beginning of Survey year and found at the end of Survey year as code 9 (1,272) = 33,035.

Table 2.3 Calculation of mid-year population by Project-area in the second and third years from results of Semi-annual Surveys.

No	Project-area/ Centre	Survey Year	Status Code: (7)						Population
			(1) Resident all year	(2) Resident died dur- ing the year	(3) Birth, alive at the end of year	(6) Resident out- migrant	(7) In- migrant	(9) Resident all year but not enumerated earlier	
1	Jakarta	2nd mid-year 3rd end-year 3rd mid-year	28703 29778	203	1016 915	2848	2044 1842	1272 590	33031 33125 33094
2	Cirebont Barat	2nd mid-year 3rd end-year 3rd mid-year	29328 30262	272	790 758	2582	1674 1330	805 449	32792 32799 32796
3	Ciemas	2nd mid-year 3rd end-year 3rd mid-year	33146 34743	329	1166 933	1227	824 655	656 435	35575 36766 36373
4	Kandang Serang	2nd mid-year 3rd end-year 3rd mid-year	20019 20446	341	733 497	246	273 156	40 29	20856 21128 21038
5	Ngantang	2nd mid-year 3rd end-year 3rd mid-year	44792 45041	430	902 829	1151	465 262	368 199	46634 46331 46431

Table 2.3 (contd.)

No	Project-area/ Centre	Survey Year	Status Code: (7)						Population
			(1) Resident all year	(2) Resident died dur- ing the year	(3) Birth, alive at the end of year	(6) Resident out- migrant	(7) In- migrant	(9) Resident all year but not enumerated earlier	
6	Sorkam	2nd mid-year 3rd end-year 3rd mid-year	17513 17949	187	654 681	769	747 371	82 61	18774 19062 18966
7	Sungai Pinang	2nd mid-year 3rd end-year 3rd mid-year	4826 4805	84	155 114	176	86 173	105 91	5182 5183 5182
8	Cina	2nd mid-year 3rd end-year 3rd mid-year	15069 15303	160	521 521	1567	1192 638	56 17	16845 16479 16600
9	Banjarangkan	2nd mid-year 3rd end-year 3rd mid-year	26407 27034	187	674 600	295	195 192	132 36	27215 27862 27647
10	Mataram	2nd mid-year 3rd end-year 3rd mid-year	8536 9026	87	292 299	835	858 623	188 83	9760 10031 9942

Table 2.3 (contd.)

No	Project-area/ Centre	Survey Year	Status Code: (7)						Populat
			(1) Resident all year	(2) Resident died dur- ing the year	(3) Birth, alive at the end of year	(6) Resident out- migrant	(7) In- migrant	(9) Resident all year but not enumerated earlier	
All centres		2nd mid-year	228339	2280	6903	11696	8358	3704	246664
		3rd end-year	234387		6147		6242	1990	266069
		3rd mid-year							257655

(7)

Complete definitions are given in Table 1.3

Source: Unpublished Computer Printouts of the SVRP 1975-1977.

Mid-year population (Jakarta) =

Population at the beginning of Survey year + Population at the end of Survey year

2

$$\frac{33,026 + 33,035}{2} = 33,031.$$

In the third Survey year, the respondents were asked to supply information about their ages only at the end of the Survey year. It was necessary to adjust the figures to achieve a degree of conformity between this data and the age data collected in the mid-year of the previous year. To calculate the mid-year population, the end year population was shifted a half year backwards by assuming that the population structure between the mid-year of the second Survey year and the end of the third year could not have changed significantly. The mid-year population of the third year was then calculated by "Linear interpolation" as illustrated below :

2nd year		3rd year		
1/7/'75	31/12/75	1/7/76	31/12/76	30/6/77
	p_x^m	0,67	$p_x^{m'}$	p_x^E

$$p_x^{m'} = 0,33 p_x^m + 0,67 p_x^E$$

Where : x = Age group (xth)

p_x^m = Mid-year population of the age group x for the second Survey year.

p_x^E = End year population of the age group x for the third year

$p_x^{m'}$ = Mid-year population of the age group x for the third year.

For Jakarta for example (See Table 2.3), the calculation of mid-year population of the third year would be :

$$0.33 \times 33,03 + 0,67 \times 33,125 = 33,094.$$

By summing ρ_x^m in all age groups, the total of the mid-year population for the third year in the Project-area was obtained. The computation of the mid-year populations is shown in Table 2.3.

Looking at the population distribution in broad age groups (Table 2.4.) it is clear that the second and third years show considerable variation between Project-areas. If each specific age group is examined the difference becomes even more obvious. For males, for example, the percentage of population at age 0 ranged 1 and 3 per cent, in the age group 1-4, between 9 and 16 per cent, in the age group 5-19, between 37 and 43 per cent, and in the age group 20-49, the minimum and maximum were 30 and 42 per cent, respectively. And in the age group 50 and above, the percentages of population distribution ranged from the minimum of 6 per cent to the maximum of 14 per cent.

From the same, for females, the percentages of population distribution at age 0 ranged from the minimum of 1 per cent to the maximum of 3 per cent. In the age group 1-4, the lowest was 8 per cent and the highest was 15 per cent. In the age group 5-19 the minimum was 32 and the maximum was 41 per cent. In the age group 20-49, the percentages ranged between 33 and 35 per cent. And in age group 50 onwards, the percentages of population distribution ranged from the minimum of 5 per cent and the maximum of 15 per cent.

Table 2.4 Number and Percentages of Population by Age, Sex, Survey year and Project-area of the results of the Semi-Annual Survey.

No	Project-area/ Centre	Survey Year	M A L E S										F E M A L E S									
			Mid- year popul- ation	Percentages of population in age:					Mid- year popul- ation	Percentages of population in age:												
				0	1-4	5-19	20-49	50+*		Up to 5	Up to 20	Up to 50	0	1-4	5-19	20-49	50+*	Up to 5	Up to 20	Up to 50		
1	Jakarta	2nd year 16896	2	13	37	40	6	15	52	92	16135	2	13	39	38	6	15	54	92			
		3rd year 16872	3	13	37	41	6	16	53	94	16222	3	13	39	39	6	16	55	94			
		2nd year 15970	1	12	38	37	10	13	51	88	16822	1	10	39	36	12	11	50	86			
2	Cirebon Barat	3rd year 15974	2	11	38	38	10	13	51	89	16822	2	10	36	40	12	12	48	88			
		2nd year 17921	2	14	43	33	7	16	59	92	17654	2	14	41	38	5	16	57	95			
		3rd year 18343	2	14	43	33	7	16	59	92	18030	2	14	40	38	5	16	56	94			
3	Cilemas	3rd year 18343	2	14	43	33	7	16	59	92	18030	2	14	40	38	5	16	56	94			
		2nd year 10179	2	10	39	42	7	12	51	93	10677	2	9	35	45	9	11	46	91			
		2nd year 10265	2	11	39	41	7	13	52	93	10773	2	9	36	44	9	11	47	91			
4	Kandang Serang	3rd year 10265	2	11	39	41	7	13	52	93	10773	2	9	36	44	9	11	47	91			
		2nd year 22993	1	10	39	37	13	11	50	87	23641	1	9	36	40	14	10	46	86			
		3rd year 22894	2	9	39	37	13	11	50	87	23537	2	8	36	40	14	10	46	86			
5	Ngantang	3rd year 22894	2	9	39	37	13	11	50	87	23537	2	8	36	40	14	10	46	86			
		2nd year 9178	2	16	42	30	10	18	60	90	9596	2	15	40	33	9	17	57	90			
		3rd year 9283	3	15	41	30	10	18	59	89	9683	3	14	40	33	9	17	57	90			
6	Sorkam	3rd year 9283	3	15	41	30	10	18	59	89	9683	3	14	40	33	9	17	57	90			
		2nd year 2623	2	14	37	39	8	16	53	92	2559	2	15	36	41	6	17	53	94			
		3rd year 2619	2	12	38	40	7	14	52	92	2563	2	14	37	41	6	16	53	94			
7	Sungai Pinang	3rd year 2619	2	12	38	40	7	14	52	92	2563	2	14	37	41	6	16	53	94			
		2nd year 8132	2	15	37	35	8	17	54	89	8714	2	13	32	41	10	15	47	88			
		3rd year 7975	3	14	39	35	8	17	56	91	8625	3	13	33	41	9	16	49	90			
8	Cina	3rd year 7975	3	14	39	35	8	17	56	91	8625	3	13	33	41	9	16	49	90			
		2nd year 13276	1	11	37	37	14	12	49	86	13939	1	9	35	40	15	10	45	85			
		3rd year 13495	2	11	37	37	13	13	50	87	14152	2	9	35	40	14	11	46	86			
9	Banjarangkan	2nd year 13495	2	11	37	37	13	13	50	87	14152	2	9	35	40	14	11	46	86			
		3rd year 5016	1	14	40	38	7	15	55	93	4744	2	13	39	36	9	15	54	90			
		2nd year 5094	3	12	40	38	7	15	55	93	4848	3	13	39	36	9	16	55	91			
10	Mataram	3rd year 5094	3	12	40	38	7	15	55	93	4848	3	13	39	36	9	16	55	91			
		2nd year 122184	1	12	39	37	10	13	52	89	124481	1	12	38	39	10	13	51	90			
		3rd year 122814	2	11	37	39	10	13	50	89	125255	2	11	37	39	10	13	50	89			

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.
 Note: * Not included "unknown age"

If the cumulative population distributions are examined, it can be seen that the differences within age group for the second and third Survey years were slight; most of them were less than 1 %, except for Jakarta and Cina, particularly for the cumulation up to age 50. The difference was largely due to mis-reporting of age. For instance, there were many babies reported as aged 1 and many children aged 4 who were enumerated as aged 5 as a result of digit preference error (Central Bureau of Statistics, 1977, unpublished report).

This situation frequently occurs in developing countries like Indonesia, where many parents are illiterate and do not know exactly the birth date of their children and so therefore are more likely to guess their children's age to end with digit 5 or 0 (Mamas, 1968, p: 2).

The difference may also have been due to some cultural factors, in the case of Muslims (McDonald, et al, 1976 ; pp : 19-20). Generally, Muslims in Indonesia, especially in rural areas, will consider a child reaches 1 year of age if he/she has passed one Eid (Lebaran) celebration. This would mean that some children who were born 6 or 7 months before Eid would be counted as 1 year of age after the celebration of passing that festival.

2.3. Crude Death Rate

From the " observed " data (unadjusted) of the total number of deaths and the mid-year population in each Project-area, which had been calculated earlier in sections 2.1 and 2.2, the unadjusted Crude Death Rate per Project-area for each Survey year was computed by the following simple formula :

$$\text{Crude Death Rate} = \frac{\text{Total deaths in one year of Survey period}}{\text{Mid-year population}} \times 1000$$

The summary of the calculation of the Crude Death Rate for each Project-area in the second and third years of Survey is presented in Table 2.5.

Estimation of unadjusted Crude Death Rate from the Surveys in the second and third years in Table 2.5. showed similar and considerable variation between Project-areas. The highest estimates were found in Kandang Serang (21.7 per 1000 population for the second Survey year and 18.0 per 1000 population for the third year), and Sungai Pinang (21.2 per 1000 population for the second year and 22.0 per 1000 population for the third year). These areas are isolated rural areas in Central Java and South Kalimantan, where medical care and health facilities are very poor.

There are the additional factors of difficulties of communication and transportation plus the problem of low education of the villagers (Suhartono, 1979 : 16-17). Estimates of Crude Death Rate around 11 - 14 per 1000 population were found in other rural areas such as Ciemas Sorkam and Cina. Estimates of 8 to 12 per 1000 population were obtained in urban areas such as Jakarta, Cirebon Barat and Mataram, where the social conditions and health, together with medical facilities were superior, and many of the infectious, parasitic and respiratory diseases were more likely to be effectively controlled. These conditions were also believed to apply to Ngantang and Banjarangkan where Crude Death Rates were around 9-11 per 1000 population.

The low Crude Death Rate in most of the Project-areas, except for Kandang Serang and Sungai Pinang, seemed to be unreasonably low compared with other estimates obtained from other sources (more detailed examination of this aspect is to be found in section 2.5 and Chapter

Table 2.5 Calculation of unadjusted Crude Death Rates by Survey year and Project-area of the results of Semi-Annual Survey

No	Project-area/ Centre	Survey Year	Number of:		Crude Death Rate per 1000 Population
			Deaths	Mid-year Population	
1	Jakarta	2nd year	260	33,032	7.9
		3rd year	305	33,094	9.2
2	Cirebon Barat	2nd year	314	32,792	9.6
		3rd year	378	32,796	11.5
3	Ciemas	2nd year	404	35,575	11.4
		3rd year	390	36,373	10.7
4	Kandang Serang	2nd year	452	20,856	21.7
		3rd year	379	21,038	18.0
5	Ngantang	2nd year	480	46,634	10.3
		3rd year	521	46,431	11.2
6	Sorkam	2nd year	264	18,774	14.1
		3rd year	198	18,966	10.4
7	Sungai Pinang	2nd year	110	5,182	21.2
		3rd year	114	5,182	22.0
8	Cina	2nd year	217	16,846	12.9
		3rd year	216	16,600	13.0
9	Banjarangkan	2nd year	251	27,215	9.2
		3rd year	236	27,647	8.5
10	Mataram	2nd year	115	9,760	11.8
		3rd year	88	9,942	8.9
All centres		2nd year	2,867	246,665	11.6
		3rd year	2,825	248,069	11.4

Source: Unpublished Computer Printouts of the SVRP.

Four).

The low Crude Death Rate in most of Project-areas was mainly due to the under enumeration of deaths.

2.4. Age Specific Death Rates

Unadjusted Age Specific Death were computed from deaths reported of persons of a specific sex and age group divided by the mid-year population of the same sex and age group. The computation of Age Specific Death Rates can be expressed as a simple formula :

$$\text{Age Specific Death Rate (ASDR)}_x = \frac{\text{Number of deaths to persons in specific sex and age group (x)}}{\text{Number of mid-year population in a specific sex and age group (x)}} \times 1000$$

The unadjusted Age Specific Death Rates for the second and third years are Shown in Table. 2.6. and Appendix I.1. & Appendix I.2.

In general, the patterns of Age Specific Death Rates shown in Table 2.6 indicate a consistent and similar pattern for most Project-areas, for both sexes and for both Survey years. Without exception, for all Project-areas and for both Survey years, the lowest Age Specific Death Rates are in age group 15-19.. As expected, Crude Death Rates of males exceed those of females in virtually all of the Project-areas. The level of male mortality was higher in nearly all age groups. Age Specific Death Rates in the two high mortality areas (Kandang Serang and Sungai Pinang) are consistently above those for other Project-areas in almost all age groups.

In most cases, the mortality levels of the second year are higher than for those of the third year.

Table 2.6 Unadjusted Age Specific Death Rates per Centre by Selected Age Groups, Sex and Survey Year of the 1975-1977 SVRP.

JAKARTA (× 1000)				
Age	MALES		FEMALES	
	Second Year	Third Year	Second Year	Third Year
0	109.6	119.7	112.1	102.3
1- 4	13.4	16.6	9.8	6.3
5-19	2.7	4.5	2.4	2.5
20-49	3.5	4.7	3.1	3.0
50+	31.8	33.0	26.5	29.4
Total	8.4	10.9	7.3	7.5

CIREBON BARAT				
0	134.9	117.1	101.0	104.8
1- 4	13.4	16.6	12.7	16.4
5-19	3.4	3.8	2.2	2.8
20-49	3.9	4.2	3.8	3.1
50+	36.9	42.6	30.6	41.8
Total	10.2	11.9	9.0	11.2

CIEMAS				
0	159.0	86.5	110.1	90.5
1- 4	24.2	18.7	19.8	20.5
5-19	4.0	3.4	3.5	4.5
20-49	8.0	8.7	5.9	6.7
50+	31.7	23.6	22.5	25.1
Total	13.1	10.8	9.6	10.6

KANDANG SERANG				
0	173.7	167.4	173.3	151.9
1- 4	35.9	38.7	39.1	35.0
5-19	10.2	5.3	7.6	4.2
20-49	13.9	12.7	14.7	9.6
50+	81.7	60.3	61.6	51.8
Total	21.8	19.3	21.5	16.8

NGANTANG				
0	119.0	163.2	152.3	167.4
1- 4	7.0	16.1	13.3	7.8
5-19	2.3	2.0	2.6	1.9
20-49	5.9	5.0	6.1	3.2
50+	36.5	42.4	31.0	47.3
Total	10.0	11.4	10.6	11.1

Table 2.6 (contd.)

SORKAM

Age	MALES		FEMALES	
	Second Year	Third Year	Second Year	Third Year
0	150.0	169.9	144.7	167.5
1- 4	24.0	17.2	21.5	8.4
5-19	3.9	3.1	2.6	1.0
20-49	7.6	5.8	4.4	2.5
50+	53.3	29.5	30.9	30.1
Total	16.3	12.3	11.9	8.7

SUNGAI PINANG

0	173.1	169.5	160.0	176.5
1- 4	34.7	33.8	26.8	19.2
5-19	5.1	13.0	6.6	11.7
20-49	13.7	14.4	19.8	13.2
50+	76.2	68.1	58.4	75.3
Total	21.3	23.7	21.0	20.3

CINA

0	149.7	164.3	146.7	168.9
1- 4	18.0	18.5	21.5	10.6
5-19	3.0	4.9	3.6	5.0
20-49	10.3	10.8	7.0	7.0
50+	41.1	41.7	29.5	28.6
Total	13.5	14.6	12.3	11.5

BANJARANGKAN

0	158.7	169.4	128.5	148.8
1- 4	6.5	6.3	10.0	9.5
5-19	1.4	1.6	2.4	2.0
20-49	4.1	3.8	3.2	3.5
50+	34.6	29.2	25.4	24.5
Total	10.1	8.9	8.4	8.2

MATARAM

0	163.0	162.8	117.6	126.3
1- 4	24.2	17.6	19.5	11.6
5-19	1.5	1.0	2.7	1.0
20-49	5.2	3.0	4.6	3.4
50+	36.4	46.6	48.7	24.9
Total	11.4	9.8	12.2	7.9

Table 2.6 (contd.)

ALL CENTRES

Age	MALES		FEMALES	
	Second Year	Third Year	Second Year	Third Year
0	143.3	135.5	129.6	128.1
1- 4	17.6	18.2	17.5	13.8
5-19	3.4	3.5	3.2	3.0
20-49	6.7	6.5	6.1	4.8
50+	40.3	38.0	32.2	37.2
Total	12.3	12.2	11.0	10.6

Source: Unpublished Computer Printouts of the 1975-1977 SVRP.

It would seem that most Age Specific Death Rates are questionable especially for ages 0 and 1-4. In the majority of cases, the Age Specific Death Rates at age 0 are higher, and at age 1-4 are lower than the expected rates. The high Age Specific Death Rates at age 0 in some Project-areas are probably due to mis-reporting of population at age 0 as mentioned earlier; that is, some babies were perhaps as being one year olds. The low Age Specific Death Rates at age 1-4 are also due to the under enumeration of deaths at this age. Furthermore, the reporting of age at death may have also been effected by age mis-statement. Those above problems will be later discussed in Chapter Three. Meanwhile, some areas have a high death rate at age 0 while other areas have a low death rate at age 1-4. Unfortunately, without adjustment it is difficult to evaluate the accuracy of Infant and Childhood Mortality Rates for each Project-area.

It should be noted that for the purpose of this analysis, the age-unknown for the population data is not distributed on a pro-rata basis and is excluded from the calculation of Age Specific Death Rates, because the proportion is small (about 1 per cent), it will not have much effect on the calculation of Age Specific Death Rates (Central Bureau of Statistics, 1976/1977 : 138 and 1978 : 156).

As known that the enumerated population by age may have some errors such as, mis-statement of age and under enumeration of population, it was a problem throughout the project to adjust the population data because in all the Survey years, age was assigned in different period. For instance, in the first year, age was assigned as recorded by the baseline Survey at the beginning of the first year. In the second year, age was assigned as recorded by the Survey in the middle of the second year. For the third year, age was assigned as recorded by the Survey at the end of the third Survey. However, in the 1975-1977 SVRP, there were six rounds of Surveys where in conducting every Survey there was an intensive training for the permanent interviewers to improve their ability and accuracy, especially to guide them how to correct the age by using the "calendar events" well known by the local people. So in this study, the population has not been adjusted directly, but, in order to obtain the appropriate denominators for calculating Age Specific Death Rates, the mid-year population in the second and third years were calculated by weighting and interpolating the over enumerated population, as explained in Section 2.2.

2.5. Discussion

Infant deaths and child deaths usually stand out as the major contributors in countries with high mortality levels, where more than 50 per cent of deaths occur to persons aged less than 5. (See page 18). The percentages of infant deaths and child deaths from the 1975-1977 SVRP therefore are significantly low (See Table 2.2). The low percentages of deaths for children under 5 years old were primarily due to the under enumeration and mis-statement or mis-reporting of age at death of the Survey and Registration. (This evidence will be discussed in Chapter Three)

Without reliable statistics of causes of deaths, it can only be assumed that environmental and infectious causes contribute significantly to a higher proportion of infant deaths, especially neonatal deaths. This assumption was also applied to the data of the Indonesian Socio and Economic Survey where it was estimated that about 35 and 50 per cent of neonatal deaths in urban and rural areas respectively were mis-enumerated (Ruzicka, 1972, pp : 5-6). Perhaps this argument could be supported by the statistics on attendance at births and deaths from the data of the 1975-1977 SVRP. The Project revealed that quite a number of births, that is about 70 per cent and more than 80 per cent of total deaths occurred outside of hospital. Almost 70 per cent of deaths were not attended either by doctors, nurses or other health officials (Central Bureau of Statistics, 1976/1977, pp: 113-115 and 1978^a, pp: 140-142).

With respect to mis-statement of age at death, in a population such as Indonesia many illiterate parents usually do not know their children's exact birth dates. They prefer to guess their children's ages, ending with digits 0 and 5. In this case, it seemed that many deaths in age 4 were reported as age 5, resulting in the number of deaths under age 5 becoming less than the expected number. (This evidence will be discussed in Chapter Three. See also pages 20 and 26). This phenomenon is common in some developing countries in Asia and Pacific, and is also known as age "heaping" or digital preference. The extent of age "heaping" is closely related to the low levels of educational status of the villagers (Ueda, 1976, p: 4).

Taken at face value, the results for the ten Project areas obtained from the observed figures of the 1975-1977 SVRP show cumulative percentages of population distribution up to age 5 rather lower than those calculated from the 1971 Population Census and the 1976 Intercensal Survey (See Table 2.7). The lowest percentages are in the Project-area of Ngan-

tang for both sexes (Table 2.4). The significant difference of cumulative percentages of population distribution up to age 5 is mainly due to under enumeration in the Survey, particularly for children under 5 year olds. This aspect will be elaborated upon in Chapter Three.

Table : 2.7. A comparison of cumulative percentages of population distribution from the 1975-1977 SVRP and the 1971 Population Census and the 1976 Intercensal Survey.

No.	Source	Region	M a l e s			F e m a l e s		
			Up to 5	Up to 20	Up to 50	Up to 5	Up to 20	Up to 50
1.	1971 Population Census	Indonesia	16.5	55.0	90.5	15.8	52.1	90.3
2.	1976 Intercensal Survey	Indonesia	15.4	53.9	90.5	14.6	51.8	90.2
3.	Sample Vital Registration (second year)	Ten Project-areas	13.7	52.8	89.6	12.9	50.5	89.2
4.	Sample Vital Registration (third year)	Ten Project-areas	13.4	50.6	89.9	13.3	50.5	89.8

Source : 1. Central Bureau of Statistics, 1975, p : 7

2. Central Bureau of Statistics, 1976^{b)}, p : 19

3 & 4. Unpublished Computer Printouts of the SVRP, 1975-1977

The Crude Death Rate for Indonesia during the period 1961-1971 (McNicoll and Mamas, 1976, pp : 43,47), during the period 1961-1971 (Speare, 1976, Mimeographed) and during the period 1971-1976 (Central Bureau of Statistics, 1978^{b)}, pp : 3-4) was over 20 per thousand population. It can therefore be said that the unadjusted Crude Death Rate from the 1975-1977 SVRP in most of the Project-areas (Table 2.5) is significantly low, except for Kandang Serang and Sungai Pinang. The low

Crude Death Rates in eight out of the ten Project-areas were mainly due to the under enumeration of deaths for both the Registration and Survey, particularly the infant and child deaths at ages 1-4. (Again, this evidence will be discussed in Chapter Three). Deaths of infants and young children may be "selectively forgotten" or the people may feel that there is no necessity to report these events because in reporting these events they would be reminded of their bereavement (Suhartono, 1979, p:16)

An investigation of the childhood mortality rates in the age group 1-4 (Table 2.8), shows considerable variation between these rates in the various project-areas, for both sexes and for both years. For males, the rates range from the minimum of 6.3 per 1000 (Banjaringan for the third year) to the maximum of 38.7 per 1000 (Kandang Serang for the second year), and in the case of females, the rates range from the lowest of 6.3 per 1000 (Jakarta for the third year) to the highest of 39.1 per 1000 (Kandang Serang for the second year). Furthermore, considering all Project-areas together the childhood mortality for males between the two Survey years ranges from 17.6 to 18.2 per 1000, whereas for females it ranges from 13.8 to 17.5 per 1000.

In conjunction with the childhood mortality level in the previous decade for Indonesia as a whole, where the rate for males was 27.5 per 1000 and for females 23.5 per 1000 (Mamas, 1968, pp : 14-15 and for rural Java-Madura, the rate for males 31.1 per 1000 and for females was 27.3 per 1000 (Suhartono and Suardi, 1970, pp : 8-9), it is apparent that the childhood mortality rate for the ten Project-areas is lower than the above data. The primary reasons are due to similar factors which have affected the low Infant Mortality Rate such as, the under enumeration of deaths in the Registration and Survey, and mis-reporting and mis-statement of age,

Table: 8. Unadjusted Childhood Mortality Rates at age 1-4 by sex, Survey year and Project-area, per 1000 population for the 1975-1977 Sample Vital Registration Project.

No	Project-area/ Centre	Survey Year	Childhood Mortality Rates	
			Males	Females
1	Jakarta	2nd year	13.4	9.8
		3rd year	16.6	6.3
2	Cirebon Barat	2nd year	13.4	12.7
		3rd year	16.6	16.4
3	Ciemas	2nd year	24.2	19.8
		3rd year	18.7	20.5
4	Kandang Serang	2nd year	35.9	39.1
		3rd year	38.7	35.0
5	Ngantang	2nd year	7.0	13.3
		3rd year	16.1	7.8
6	Sorkam	2nd year	24.0	21.5
		3rd year	17.2	8.4
7	Sungai Pinang	2nd year	34.7	26.8
		3rd year	33.8	19.2
8	Cina	2nd year	18.0	21.5
		3rd year	18.5	10.6
9	Banjarangkan	2nd year	6.5	10.0
		3rd year	6.3	9.5
10	Mataram	2nd year	24.2	19.5
		3rd year	17.6	11.6
All Centres		2nd year	17.6	17.5
		3rd year	18.2	13.8

Source: Unpublished Computer Printouts of the 1975-1977 SVRP

either for deaths or population data. The last two aspects were also applied to the data on the 1973 Fertility - Mortality Survey (McDonald, et.al, 1976, pp : 19-21 and 60-62). These problems will be discussed in Chapter Three.

Because of the small numbers and the fluctuation of the rates from one area to another and on the basis of the evaluation of the quality of the Registration (Central Bureau of Statistics, 1976/1977, p: 76 and 1978^a), p : 174), it was considered appropriate to group the ten Project-areas into three categories. The first Area is the urban areas which have a low quality of Registration such as, Jakarta, Cirebon Barat and Mataram.

The second Area is the rural areas which have a good quality of Registration and have a low level of mortality such as Ngantang, Sorkam, Cina and Banjarangkan. The third Area included the rural areas which have a high level of mortality and in most cases, have rather low quality of Registration such as, Ciemas, Kandang Serang and Sungai Pinang. To be assessed in greater detail, in this study two more Areas were added, i.e. the fourth Area is the combination of the rural areas of low and high levels of mortality, and the fifth Area included all the areas of the 1975-1977 Sample Vital Registration Project. The following are the abbreviations for those five Areas, which are used in the following Chapters :

Area I is the urban areas.

Area II is the rural areas with a low level of mortality.

Area III is the rural areas with a high level of mortality.

Area IV is the whole rural areas which consists of Areas II and III.

Area V is the whole areas of the 1975-1977 SVRP, which consists of

Areas I, II and III, or Areas I and IV.

CHAPTER III

ADJUSTED LEVELS AND PATTERNS OF MORTALITY.

3.1. Matching procedure

The first step of the Matching was carried out at the " Centre " office where the Survey deaths were matched against those recorded in the Registration. In this step, all deaths were classified as :

1. Matched deaths,
2. Non-matched deaths, recorded by Survey only,
3. Non-matched deaths, recorded by Registration only, and
4. Questionable matched deaths.

The final match status of questionable matched and non-matched deaths both by Survey and Registration was determined by field verification. In the first year of observation (1974/1975), the verification was restricted to questionable matched and non-matched deaths which were recorded by Registration only. In the second year (1975/1976) and third year (1976/1977), all unmatched deaths were followed-up.

The characteristics which were used to compare the results of Survey and Registration are as follows :

1. Name of deceased and head of household,
2. Sex of deceased,
3. Date of deaths, and
4. Address or place of usual residence of deceased.

A detailed description of the information requested is set out in Table

3.1A.

Two deaths were determined as matched events if four characteristics (name, sex, date of occurrence and place of usual residence) were the same on both Survey and Registration records. Two deaths were determined as questionable matched deaths if either three out of four characteristics or the two characteristics of name and sex were the same on both records. Two deaths were determined as non-matched deaths if at least two out of four characteristics, except for the combination of name and sex, were not the same on both Survey and Registration. (To clarify this procedure, see Table 3.1B).

Table 3.1A. The Characteristics of field Matching for the second and third years of the 1975-1977 SVRP

No.	Characteristics	Description
1.	N a m e	Name of deceased or head of household must be the same on both records.
2.	S e x	Sex of deceased must be the same on both records.
3.	Date of deaths	Month of death must be the same on both records, or an adjusted month, i.e. one month before or after death. In these Matching rules, the month of death for Registration is assumed to be correct, and is therefore used as the standard for comparison in the Matching process.
4.	Address or place of usual residence	Place of usual residence (e.g. street, sub-village and village) of the deceased must be the same on both records. If place of residence is not available, then place of death must be the same on both records.

Source : Buku Pedoman Matching & Verifikasi Tahap VI, Proyek Sample Registrasi Penduduk 1976-1977, p : 3. Central Bureau of Statistics (no year).

After return visits to the particular household to verify the questionable and the non-matched deaths registered or surveyed, the deaths were finally determined either as matched or non-matched deaths. The expected number of actual deaths was then calculated by applying the Chandra-Deming formula as described in Chapter One.

Table 3.1B. Determination of matches, questionable matches and non-matches before verification

No.	Name of deceased	Sex of deceased	Month of deaths	Address or place of usual residence	Matching status
1.	V	V	V	V	V
2.	V	V	V	X	Q
3.	V	V	X	V	Q
4.	V	X	V	V	Q
5.	X	V	V	V	Q
6.	V	V	X	X	Q
7.	V	X	V	X	N
8.	V	X	X	X	N
9.	X	V	V	X	N
10.	X	V	X	V	N
11.	X	X	V	V	N
12.	V	X	X	X	N
13.	X	V	X	X	N
14.	X	X	V	X	N
15.	X	X	X	V	N
16.	X	X	X	X	N

Notes : M = Matched deaths

N = Non-matched deaths

Q = Questionable matched deaths

V = The same characteristic

X = Not the same characteristic

Source : Buku Pedoman Matching & Verifikasi Tahun VI, Proyek Sample Registrasi Penduduk 1976-1977, p : 5 Central Bureau of Statistics (no year).

When a matcher visited a particular household to verify the questionable matched and non-matched deaths registered or surveyed, the matcher had to reinterview the household head, questioning directly and carefully all members who had been living in that household during the year of the Survey. The matcher could then immediately check the vital event (in this case, death) which was classified as questionable matched or non-matched death. In the case of the questionable matched deaths, the matcher would check whether the deaths which were recorded either in the Survey or in the Registration were matched or non-matched. If the death was considered as a matched death, then the matcher would change the wrong information which existed either in the Survey questionnaire or in the Registration questionnaire. In the case of incorrect completion of the Registration questionnaire, the matcher was to ask the village headman to correct it. However, if the death was considered as a non-matched death, the matcher would distinguish that one death into two deaths, one as a death which was recorded only in the Survey, and the other as a death which was recorded only in the Registration. In the case of a death which was previously recorded only in the Survey, if, after visiting the household, the household could produce the death certificate to the matcher, then the matcher would classify this death as a matched death. Sometimes, it also happened that a non-matched death which was previously only registered in the Registration, was often mistakenly copied in the Survey questionnaire. In that case, the matcher would alter the wrong information in the Survey questionnaire and classify this death as a matched death. On the other hand, if, the matcher could not find any more information than the existing information in the Registration questionnaire, then the matcher would still classify this death as a non-

matched death.

Before the field verification, the questionable deaths were about 24 per cent of the total deaths. After the field verification, more than 90 per cent of the questionable deaths were changed to become " matched " deaths. The questionable deaths were mainly due to differences in month of death (51 per cent) and the difference in the names of deceased (36 per cent). (Central Bureau of Statistics, 1976/1977 and 1978^a).

3.2. Results of Matching

Tables 3.2A to 3.2C give the percentages of deaths in four categories of the Chandra-Deming technique. Looking at these Tables, it seems that the percentage of the four categories of the Chandra-Deming technique vary between age groups, Areas and Survey years for both sexes. The highest percentage of matched deaths was found in rural Area II which has a low level of mortality where the Registration and Survey were better implemented than other Areas. The lowest percentage of missed deaths obtained in the rural Area II was also related to this situation.

By plotting the data of Tables 3.2A to 3.2C into Figure 2, it was easier to compare the patterns of the percentages of matched deaths by sex and Area for both years. It is apparent that the patterns by age of the matched deaths for males and females in both years were more or less similar for both rural II and III. However, looking at the patterns of matched deaths for urban Area I for both sexes in both years, the pattern is not the same due to the random fluctuations of the observed deaths, particularly at age 0 and ages 1 to 4. After age 5, the pattern appears to be similar for both sexes.

On the basis of the data in Tables 3.2A to 3.2C, it can be seen

Table 3.2A Observed Deaths and Percentages of Four Categories of Chandra-Deming Technique by Age, Sex and Area for the Second Survey Year

AGE 0												
MALES												
AREA	OBSERVED DEATHS	Percent in four categories of Chandra-Deming Technique					OBSERVED DEATHS	Percent in four categories of Chandra-Deming Technique				
		Matched Deaths		Only in Registration		Missed Deaths		Matched Deaths		Only in Registration		Missed Deaths
		C	N ₁	N ₂	X	Total Deaths N		C	N ₁	N ₂	X	Total Deaths N
(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(number)
I	89	25	35	17	23	100	79	38	45	8	9	100
II	120	72	18	8	2	100	118	72	20	6	2	100
III	101	27	47	10	16	100	82	32	40	12	16	100
IV	221	51	33	10	6	100	200	56	30	9	5	100
V	310	44	34	12	10	100	279	51	34	9	6	100

AGE: 1-4												
I	68	56	33	7	4	100	53	38	34	15	13	100
II	80	76	34	0	0	100	94	78	21	1	0	100
III	108	43	43	7	7	100	96	41	38	11	10	100
IV	188	58	35	14	3	100	190	59	31	7	3	100
V	256	57	35	5	3	100	243	54	34	9	5	100

AGE: 5-19												
I	41	44	56	5	5	100	33	27	41	12	20	100
II	52	88	6	6	0	100	54	76	24	0	0	100
III	66	40	45	7	8	100	60	43	47	5	5	100
IV	118	61	29	7	3	100	114	59	37	2	2	100
V	159	57	33	6	4	100	147	52	39	5	4	100

Table 3.2A (contd.)

AGE: 20-49

MALES														FEMALES																
AREA	Percent in four categories of Chandra-Deming Technique										Percent in four categories of Chandra-Deming Technique																			
	OBSERVED DEATHS					OBSERVED DEATHS					OBSERVED DEATHS					OBSERVED DEATHS														
	Matched Deaths	Only in Survey	Only in Registration	Missed Deaths	Total Deaths	Matched Deaths	Only in Survey	Only in Registration	Missed Deaths	Total Deaths	Matched Deaths	Only in Survey	Only in Registration	Missed Deaths	Total Deaths	Matched Deaths	Only in Survey	Only in Registration	Missed Deaths	Total Deaths										
																					(Number)	C	N ₁	N ₂	X	N̂	(number)	C	N ₁	N ₂
I	57	50	26	16	8	100	53	41	39	10	10	100	57	50	26	16	8	100	53	41	39	10	10	100	57	50	26	16	8	100
II	121	90	8	2	0	100	114	89	10	1	0	100	121	90	8	2	0	100	114	89	10	1	0	100	121	90	8	2	0	100
III	121	61	20	14	5	100	131	64	28	6	2	100	121	61	20	14	5	100	131	64	28	6	2	100	121	61	20	14	5	100
IV	242	76	14	8	2	100	245	76	20	23	1	100	242	76	14	8	2	100	245	76	20	23	1	100	242	76	14	8	2	100
V	299	71	7	10	2	100	298	70	23	5	2	100	299	71	7	10	2	100	298	70	23	5	2	100	299	71	7	10	2	100

AGE: 50+																														
I	107	67	26	5	2	100	109	65	21	11	3	100	107	67	26	5	2	100	109	65	21	11	3	100	107	67	26	5	2	100
II	250	90	9	1	0	100	209	88	11	1	0	100	250	90	9	1	0	100	209	88	11	1	0	100	250	90	9	1	0	100
III	116	57	28	10	5	100	85	64	21	12	3	100	116	57	28	10	5	100	85	64	21	12	3	100	116	57	28	10	5	100
IV	366	80	15	4	1	100	294	81	14	5	1	100	366	80	15	4	1	100	294	81	14	5	1	100	366	80	15	4	1	100
V	473	77	18	4	1	100	403	77	16	6	1	100	473	77	18	4	1	100	403	77	16	6	1	100	473	77	18	4	1	100

AGE: ALL AGES																														
I	362	49	33	11	7	100	327	46	35	11	8	100	362	49	33	11	7	100	327	46	35	11	8	100	362	49	33	11	7	100
II	623	84	13	3	0	100	589	82	16	2	0	100	623	84	13	3	0	100	589	82	16	2	0	100	623	84	13	3	0	100
III	512	47	36	10	7	100	454	50	34	10	6	100	512	47	36	10	7	100	454	50	34	10	6	100	512	47	36	10	7	100
IV	1135	68	24	6	2	100	1043	69	24	5	2	100	1135	68	24	6	2	100	1043	69	24	5	2	100	1135	68	24	6	2	100
V	1497	64	26	7	3	100	1370	63	27	7	3	100	1497	64	26	7	3	100	1370	63	27	7	3	100	1497	64	26	7	3	100

AGE: 50+

I	107	67	26	5	2	100	109	65	21	11	3	100	107	67	26	5	2	100	109	65	21	11	3	100	107	67	26	5	2	100
II	250	90	9	1	0	100	209	88	11	1	0	100	250	90	9	1	0	100	209	88	11	1	0	100	250	90	9	1	0	100
III	116	57	28	10	5	100	85	64	21	12	3	100	116	57	28	10	5	100	85	64	21	12	3	100	116	57	28	10	5	100
IV	366	80	15	4	1	100	294	81	14	5	1	100	366	80	15	4	1	100	294	81	14	5	1	100	366	80	15	4	1	100
V	473	77	18	4	1	100	403	77	16	6	1	100	473	77	18	4	1	100	403	77	16	6	1	100	473	77	18	4	1	100

AGE: ALL AGES

I	362	49	33	11	7	100	327	46	35	11	8	100	362	49	33	11	7	100	327	46	35	11	8	100	362	49	33	11	7	100
II	623	84	13	3	0	100	589	82	16	2	0	100	623	84	13	3	0	100	589	82	16	2	0	100	623	84	13	3	0	100
III	512	47	36	10	7	100	454	50	34	10	6	100	512	47	36	10	7	100	454	50	34	10	6	100	512	47	36	10	7	100
IV	1135	68	24	6	2	100	1043	69	24	5	2	100	1135	68	24	6	2	100	1043	69	24	5	2	100	1135	68	24	6	2	100
V	1497	64	26	7	3	100	1370	63	27	7	3	100	1497	64	26	7	3	100	1370	63	27	7	3	100	1497	64	26	7	3	100

NOTES: Area I urban II Rural, low mortality III Rural, high mortality IV Combined rural Areas II and III V All areas (I+II+III)

SOURCE: Unpublished Computer Printouts of the SVRP 1975-1977.

Table 3.2B Observed Deaths and Percentages of Four Categories of Chandra-Deming Technique by Age, Sex and Area for the Second Survey Year

M A L E S												
AGE 0												
AREA	OBSERVED DEATHS	Percent in four categories of Chandra-Deming Technique						OBSERVED DEATHS	Percent in four categories of Chandra-Deming Technique			
		Matched Deaths		Only in Survey		Only in Registration			Missed Deaths		Total Deaths	
		(number)	C	N ₁	N ₂	X	N		(number)	C	N ₁	N ₂
I	109	22	30	20	28	100	93	25	32	19	24	100
II	128	55	26	13	6	100	123	58	23	11	8	100
III	88	27	36	16	21	100	82	25	32	19	24	100
IV	216	43	31	15	11	100	205	46	28	16	10	100
V	325	36	32	15	15	100	298	40	30	17	13	100

F E M A L E S												
AGE 1-4												
I	75	24	32	19	25	100	47	40	40	10	10	100
II	86	61	29	7	3	100	50	70	28	2	0	100
III	102	42	46	6	6	100	94	28	53	7	12	100
IV	188	57	38	6	5	100	144	43	46	5	6	100
V	263	43	37	11	9	100	191	42	45	6	7	100

AGE 5-19												
I	53	41	37	12	10	100	35	34	39	12	15	100
II	53	74	20	4	2	100	44	70	30	0	0	100
III	61	41	38	10	11	100	60	26	36	16	22	100
IV	114	57	31	8	4	100	104	45	36	10	9	100
V	167	52	33	9	6	100	139	42	37	11	10	100

Table 3.2B (contd.)

AGE: 20-49													
I	64	60	27	9	4	100	46	38	48	6	8	100	
II	108	79	19	2	0	100	83	80	19	1	0	100	
III	122	53	29	12	6	100	106	48	27	9	6	100	
IV	230	66	24	7	3	100	189	62	29	6	3	100	
V	294	64	25	8	3	100	235	57	34	6	3	100	
AGE: 50+													
I	123	74	22	3	1	100	126	68	22	8	2	100	
II	237	86	14	0	0	100	259	83	14	3	0	100	
III	86	49	39	7	5	100	82	53	34	8	5	100	
IV	323	6	31	2	1	100	341	76	19	4	1	100	
V	446	76	21	2	1	100	467	74	19	5	2	100	
AGE: ALL AGES													
I	424	45	31	14	10	100	347	45	34	12	9	100	
II	612	74	20	5	1	100	559	75	19	5	1	100	
III	459	43	38	10	9	100	424	37	39	11	13	100	
IV	1071	61	28	7	4	100	983	59	29	8	4	100	
V	1495	57	29	9	5	100	1330	56	30	9	5	100	

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.
 Note: The classification of Areas is the same as Table 3.2A.

Table 3.2C Observed deaths and percentages of four Categories of Chandra-Deming Technique by Age, Sex and Area for the combined second and third years.

M A L E S													
AREA	OBSERVED DEATHS	Percent in four categories of Chandra-Deming Technique						F E M A L E S					
		Percent in four categories of Chandra-Deming Technique						Percent in four categories of Chandra-Deming Technique					
		Matched Deaths		Only in Survey		Only in Registration		Matched Deaths		Only in Survey		Only in Registration	
		C	N ₁	N ₂	X	Total Deaths N̂	(number)	C	N ₁	N ₂	X	Total Deaths N̂	(number)
AGE: 0													
I	198	23	33	19	26	100	172	31	37	14	18	100	100
II	248	63	22	11	4	100	241	67	21	8	3	100	100
III	189	27	41	13	20	100	164	28	36	16	20	100	100
IV	437	47	33	13	8	100	405	51	29	13	7	100	100
V	635	40	33	15	12	100	577	45	32	13	10	100	100
AGE: 1-4													
I	143	39	34	15	13	100	100	39	37	12	12	100	100
II	166	68	27	4	1	100	144	74	24	2	1	100	100
III	210	43	44	6	7	100	190	34	45	9	12	100	100
IV	376	54	37	5	4	100	334	52	38	6	4	100	100
V	519	50	36	8	6	100	434	49	38	8	6	100	100
AGE: 5-19													
I	91	43	40	9	8	100	68	31	41	12	16	100	100
II	105	81	13	5	1	100	98	73	27	0	0	100	100
III	127	41	42	9	9	100	120	34	41	11	14	100	100
IV	232	59	30	7	4	100	218	52	37	6	5	100	100
V	326	54	34	8	5	100	286	47	38	8	7	100	100

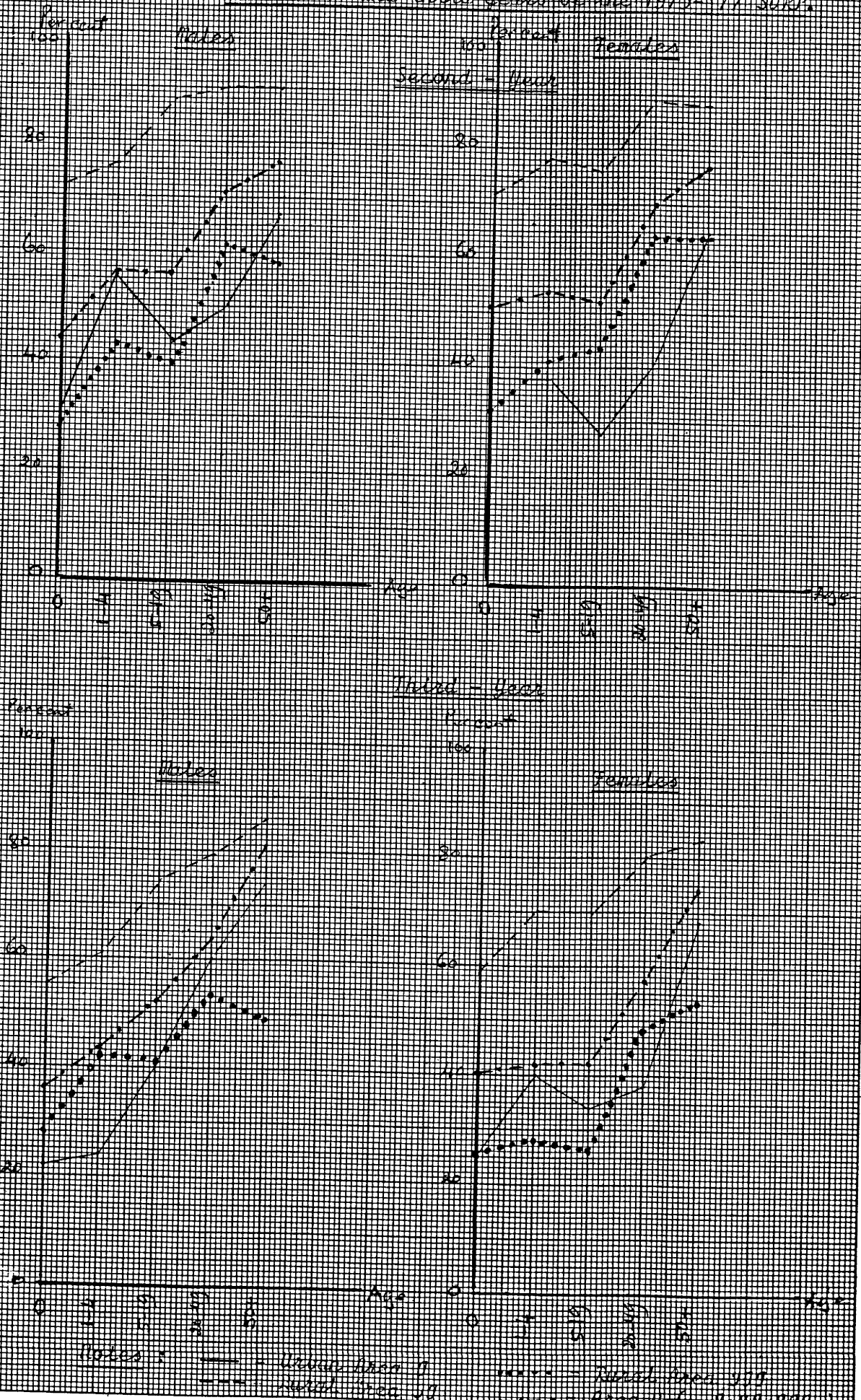
Table 3.2C (contd.)

AGE: 20-49													
I	121	55	26	12	6	100	99	39	44	9	9	100	100
II	229	85	13	1	0	100	197	85	14	1	0	100	100
III	243	57	25	13	5	100	237	57	32	7	4	100	100
IV	472	71	19	7	2	100	434	70	24	4	2	100	100
V	593	68	21	8	3	100	533	64	28	6	3	100	100
AGE: 50+													
I	230	71	24	4	1	100	235	67	21	9	3	100	100
II	487	88	11	1	0	100	468	85	12	2	0	100	100
III	202	54	32	8	5	100	167	59	27	10	5	100	100
IV	689	78	18	4	1	100	635	78	17	5	1	100	100
V	919	76	20	4	1	100	870	75	18	6	1	100	100
AGE: ALL AGES													
I	786	47	32	13	8	100	674	46	34	11	9	100	100
II	1235	79	16	5	1	100	1148	79	17	3	1	100	100
III	971	45	37	10	8	100	878	44	37	10	9	100	100
IV	2206	65	26	6	3	100	2026	64	27	7	3	100	100
V	2992	60	28	8	4	100	2700	60	28	8	4	100	100

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.
 Note: The classification of Areas is the same as Table 3.2A.

Figure 2-2

Patterns of matched depths by age, sex and Area for the second and third years of the 1975-77 SUR.



that the lowest percentage of matched deaths was found in the youngest ages and the highest was in the oldest ages. Conversely, the lowest percentages of missed deaths was observed in the oldest ages and the highest was in the youngest ages.

It is worth noting here that the extent of Matching in the 1975 - 1977 SVRP has been superior than observed in Ghana and Pakistan, (See Table 3.2D.)

Table 3.2D. A comparison of the percentages of four categories of Chandra-Deming technique for both sexes by country and year.

Country	Year	Percentage in four categories of Chandra-Demi technique				
		Matched deaths	Only in Survey	Only Registration	Missed deaths	Total
Pakistan ¹⁾	1962-1963	54.3	8.1	30.4	7.2	100.0
Ghana ²⁾	1968-1969	9.0	16.0	27.0	48.0	100.0
SVRP (Indonesia) ³⁾	1975-1977	60.0	28.0	8.0	4.0	100.0

Sources : 1). United Nations, 1971, p; 141

2). Gaisie, 1973, p; 100

3). Unpublished Computer Printouts of the 1975-1977 SVRP

From Tables 3.2E to 3.2G. it can be concluded that, in all Areas, in most age groups for both sexes and both Survey years, the completeness of deaths covered by the Survey was superior to those reported by the

Registration. The reasons ⁸⁾ are mainly due to factors such as :

1. There is no national law to regulate and enforce the execution of Vital Registration in Indonesia. Although some provinces have local regulations which are neither uniform nor compulsory.
2. People do not appreciate the significance of Vital Registration data either for the Government or for themselves. This is primarily because there is insufficient comprehension of the aims of Registration due to a lack of information about Registration.
3. Most of the Government Departments or Institutions require collection of statistical information at the village level, and as a consequence, the Registrar's work load is too heavy.
4. A lack of adequately trained registrars who can inform and guide people in conducting Registration.
5. The low educational level of people often impedes the collection of accurate data on vital events. In some areas, traditional beliefs may cause difficulties in relation to the reporting of a death in the family, because by reporting that death, they will be reminded of their bereavement.
6. The passive system of collecting information on vital events is inadequate in areas which have a problem of communication and transportation, in poor areas and in areas with a low level of education.

8). For more details, see " Population and Vital Registration in Indonesia ", by Suhartono, 1979, and " Attitudes and Conditions Underlying Vital Registration in Sample Registration Project Areas in Indonesia ", by Gardiner, and Sugito, 1977

Table 3.2E Expected number of deaths and percentages of the under enumeration of Survey and Registration by Age, Sex and Area for the second Survey Year.

AREA	AGE: 0					
	M A L E S			F E M A L E S		
	Expected number of deaths	Under enumeration of (%)		Expected number of deaths	Under enumeration of (%)	
		Survey	Registration		Survey	Registration
I	116	39.7	58.6	81	11.1	40.7
II	123	10.6	20.3	120	7.5	21.7
III	121	26.4	62.8	97	27.8	55.7
IV	235	15.3	39.1	210	13.8	34.8
V	343	21.6	44.3	297	14.8	40.4
AGE: 1-4						
I	71	11.3	36.6	61	27.9	47.5
II	80	0.0	23.7	94	1.1	21.3
III	116	13.8	50.0	107	21.5	47.7
IV	193	6.7	38.3	197	10.2	34.0
V	264	8.0	37.9	256	13.7	36.7
AGE : 5-19						
I	43	9.3	57.2	41	31.7	61.0
II	52	5.8	5.8	54	0.0	24.1
III	72	15.3	52.8	63	9.5	52.4
IV	122	9.8	32.0	116	4.3	38.8
V	165	9.7	37.0	153	9.2	43.1
AGE: 20-49						
I	62	24.2	33.9	59	20.3	49.2
II	121	1.7	8.3	114	0.9	10.5
III	127	18.1	25.2	134	8.2	23.1
IV	246	9.4	16.3	247	4.5	20.6
V	306	11.8	19.3	303	6.6	25.4
AGE: 50+						
I	109	6.4	28.4	113	14.2	23.9
II	250	1.2	8.4	209	1.4	10.5
III	122	14.8	32.8	88	14.8	23.9
IV	369	4.9	15.7	296	5.1	14.2
V	478	5.2	18.6	408	7.4	16.7
AGE: ALL AGES						
I	390	17.7	40.3	356	19.1	42.7
II	626	3.4	12.5	591	2.4	15.7
III	553	17.2	43.3	484	15.5	40.1
IV	1160	8.4	25.7	1063	7.2	25.9
V	1543	10.3	29.0	1411	9.7	29.7

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.

Note: The classification of Areas is the same as Table 3.2A.

Table 3.2F Expected number of deaths and percentages of the under enumeration of Survey and Registration by Age, Sex and Area for the second Survey Year.

AREA	AGE: 0					
	M A L E S			F E M A L E S		
	Expected number of deaths	Under enumeration of (%)		Expected number of deaths	Under enumeration of (%)	
		Survey	Registration		Survey	Registration
I	151	47.7	58.3	122	42.6	55.7
II	136	19.1	31.6	134	19.4	30.6
III	112	37.5	57.1	108	43.5	55.6
IV	242	25.6	41.7	227	25.6	37.9
V	383	32.4	46.7	343	30.3	43.1
AGE: 1-4						
I	100	44.0	57.0	52	19.2	50.0
II	89	10.1	32.6	50	2.0	28.0
III	109	11.9	52.3	107	18.7	65.4
IV	197	10.7	43.1	153	11.1	52.3
V	290	20.0	46.6	205	13.2	51.7
AGE: 5-19						
I	59	22.0	47.5	41	26.8	53.7
II	54	5.6	22.2	44	0.0	29.5
III	68	20.6	48.5	77	37.7	58.4
IV	119	11.8	35.3	114	19.3	44.7
V	177	14.7	39.0	154	20.8	46.8
AGE: 20-49						
I	67	13.4	31.3	50	14.0	56.0
II	108	1.9	18.5	83	1.2	19.3
III	130	17.7	35.4	113	15.0	42.5
IV	236	9.7	27.1	194	8.8	32.0
V	303	10.6	28.1	243	9.1	36.6
AGE: 50+						
I	124	4.0	22.6	129	10.1	24.0
II	237	0.4	13.9	260	3.5	13.8
III	91	12.1	44.0	86	12.8	38.4
IV	325	2.8	21.5	345	5.5	19.7
V	449	3.1	21.8	474	6.8	20.9
AGE: ALL AGES						
I	469	23.7	40.5	381	21.0	42.5
II	620	6.0	21.5	565	5.5	20.2
III	504	19.2	46.4	485	24.3	51.5
IV	1109	10.7	31.7	1023	11.9	32.9
V	1571	14.2	34.1	1400	14.1	35.4

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.

Note: The classification of Areas is the same as Table 3.2A.

Table 3.2G Expected number of deaths and percentages of the under enumeration of Survey and Registration by Age, Sex and Area for the combined of the second and third Survey Years

AGE: 0						
AREA	M A L E S			F E M A L E S		
	Expected number of deaths	Under enumeration of (%)		Expected number of deaths	Under enumeration of (%)	
		Survey	Registrat- ion		Survey	Registrat- ion
I	267	44.2	58.4	209	32.1	55.0
II	258	14.7	26.0	248	11.7	24.6
III	235	32.3	60.4	206	36.4	55.8
IV	476	20.4	40.3	436	19.7	36.3
V	724	27.1	45.4	638	22.9	41.7
AGE: 1-4						
I	164	27.4	46.3	113	23.9	48.7
II	168	4.8	28.0	145	2.1	24.1
III	225	12.9	51.1	215	20.5	56.7
IV	390	8.7	40.8	349	10.3	41.8
V	551	13.8	42.1	461	13.4	43.4
AGE: 5-19						
I	99	17.2	47.5	81	28.4	56.8
II	106	5.7	14.2	98	0.0	26.5
III	139	17.3	50.4	139	24.5	55.4
IV	241	10.8	33.6	229	11.4	41.5
V	342	12.3	38.0	306	14.7	44.8
AGE: 20-49						
I	129	18.6	32.6	109	17.4	52.3
II	230	2.2	13.5	197	1.0	14.2
III	257	17.9	30.4	247	11.3	35.6
IV	482	9.5	21.6	441	6.1	25.6
V	609	11.2	23.6	546	7.7	30.4
AGE: 50+						
I	233	5.2	25.3	242	12.0	24.0
II	488	1.0	11.3	470	2.8	12.6
III	213	13.6	37.6	175	14.3	31.4
IV	694	3.9	18.4	641	5.3	17.2
AGE: ALL AGES						
I	858	20.9	40.3	737	20.1	42.6
II	1245	4.6	16.9	1156	3.9	17.9
III	1057	18.2	44.7	963	19.4	45.5
IV	2267	9.4	28.6	2083	9.4	29.2
V	3112	12.3	31.5	2808	11.8	32.4

Source: Unpublished Computer Printouts of the SVRP, 1975-1977.

Note: The classification of Areas is the same as Table 3.2A

Table 3.3 Adjustment Factors for Deaths by Age, Sex, Survey Year and Area of the Sample Vital Registration Project, 1975-1977

AREA	AGE: 0					
	M A L E S			F E M A L E S		
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.30	1.39	1.35	1.10	1.31	1.22
II	1.03	1.06	1.04	1.02	1.09	1.03
III	1.20	1.27	1.24	1.18	1.32	1.26
IV	1.06	1.12	1.09	1.05	1.11	1.08
V	1.11	1.18	1.14	1.06	1.15	1.11
	AGE: 1-4					
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.04	1.33	1.15	1.15	1.11	1.13
II	1.00	1.03	1.01	1.00	1.00	1.01
III	1.07	1.07	1.07	1.11	1.14	1.13
IV	1.03	1.05	1.04	1.04	1.06	1.04
V	1.03	1.10	1.06	1.05	1.07	1.06
	AGE: 5-19					
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.05	1.11	1.09	1.24	1.17	1.19
II	1.00	1.02	1.01	1.00	1.00	1.00
III	1.09	1.11	1.09	1.05	1.28	1.16
IV	1.03	1.04	1.04	1.02	1.10	1.05
V	1.04	1.06	1.05	1.04	1.11	1.07
	AGE: 20-49					
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.09	1.05	1.07	1.11	1.05	1.10
II	1.00	1.00	1.00	1.00	1.00	1.00
III	1.05	1.07	1.06	1.02	1.07	1.04
IV	1.02	1.03	1.02	1.01	1.03	1.02
V	1.02	1.03	1.03	1.03	1.03	1.02
	AGE: 50+					
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.02	1.01	1.01	1.04	1.02	1.03
II	1.00	1.00	1.00	1.00	1.00	1.00
III	1.05	1.06	1.05	1.04	1.05	1.05
IV	1.01	1.01	1.01	1.01	1.01	1.01
V	1.01	1.01	1.01	1.01	1.01	1.01
	AGE: ALL AGES					
	Second Year	Third Year	Second & Third Years	Second Year	Third Year	Second & Third Years
I	1.08	1.11	1.09	1.09	1.10	1.09
II	1.00	1.01	1.01	1.00	1.01	1.01
III	1.08	1.10	1.09	1.07	1.14	1.10
IV	1.02	1.04	1.03	1.02	1.04	1.03
V	1.03	1.05	1.04	1.03	1.05	1.04

Table 3.3 (contd.)

AGE: ALL AGES *						
I	1.11	1.18	1.13	1.10	1.14	1.12
II	1.00	1.02	1.01	1.01	1.02	1.01
III	1.09	1.11	1.10	1.08	1.16	1.12
IV	1.03	1.04	1.03	1.02	1.05	1.03
V	1.04	1.07	1.05	1.03	1.07	1.05

Source: Unpublished Computer Printouts of the SVRP 1975-1977.

Note: * Based on the adjustment by the "total" (see footnote 11).

3.3. Adjustment factors

As mentioned in Chapter One, the calculation of the adjustment factors for deaths by the Chandra-Deming technique can be classified into three categories : the adjustment factor for the Survey only, the factor for the Registration only and the adjustment factor for the whole observation for both Survey and Registration. In this Chapter, the discussion is limited to the case of the adjustment factors to the " observed " deaths, based on both Survey and Registration, rather than by the Survey or Registration only.

The explanation of the calculation of the adjustment factors will not be repeated here, because it has been mentioned in Chapter One, Section 1.5.

The adjustment factors in this study were obtained for all Areas, both years for selected age groups for both sexes (See Table 3.3.)

To eliminate, the substantial ratio errors as consequence of small member of deaths in five-year age group for some Project-areas, in applying the Chandra-Deming technique, it is better to stratify age at death into five broad age-groups, as shown in Table 3.3 and some Tables earlier (Marks et.al, 1974)

3.4. Analysis of adjustment factors

The range of adjustment factors for various age groups is as follows :

Tables 3.4. Range of adjustment factors by broad age groups.

Age	Range	Description for the highest adjustment factors	Description for the lowest adjustment factors
0	1.02-1.39	M, Area I, Year III	
1-4	1.00-1.33	M, Area I, Year III	
5-19	1.00-1.24	F, Area I, Year II	The lowest adjustment factors are for rural Area II
20-49	1.00-1.11	F, Area I, Year II	
50+	1.00-1.06	M, Area III, Year III	
Total ⁺	1.00-1.14	F, Area III, Year III	
Total [*]	1.00-1.18	M, Area III, Year III	

Notes : +). Based on the adjustment by the " age "⁹⁾
 *)). Based on the adjustment by the "total "¹⁰⁾
 M = Males ; F = Females

Source : Unpublished Computer Printouts of the 1975-1977 SVRP

(9). In this text, the adjustment by the " age " refers to the adjustment by using a different adjustment factors in each age group for each Area.

10). The adjustment by the " total " refers to the adjustment of each age group by using the same adjustment factor based on the total deaths in each Area.

Except for rural Area II at ages 1 and over for males in year II and for females in both years, it is clear from Table 3.3 that there is a considerable variation in the adjustment factors between Areas, ages, sexes and years. However, the lowest factors are for higher ages for rural Area II and for year II, whereas the highest factors are for younger ages, for urban Area I and for year III.

At age 0, the adjustment factor ranges from 1.02 to 1.39 (Table 3.4), indicating up to 39 per cent of ^{deficiency} deficiency in the observed deaths. The urban Area I in the case of males, shows a higher adjustment factor than rural Area III, but the reverse is true for females. The rural Area II requires only between 3 and 6 per cent of adjustment in the case of males and between 2 and 9 per cent for females for the second and third years respectively.

The adjustment required at ages 1-4 is much lower than for age 0 (up to 15 per cent), except for males in urban Area I for year III which still requires a higher adjustment factor. A higher factor for males in this area is mainly due to very high under enumeration of deaths, especially for the Registration where the under counting in that age group is close to 60 per cent (Table 3.2F). Similar to age 0, the adjustment factor in age group 1-4 in rural Area II is still minimal (up to 3 per cent only)

For ages beyond 5 year, the adjustment factors are smaller; the urban Area I and rural Area III require more or less identical adjustments, while rural Area II seems to require practically no adjustment.

The lowest and more homogeneous adjustment factors found in rural Area II seem plausible when compared with the other Areas.

Rural Area II had both better Registration and Survey, therefore it has a low percentage of missed deaths as a consequence of a low percentage of under-enumeration.

The adjustment factors for all ages combined are identical for urban Area I and rural Area III requiring up to 10 per cent adjustment, whereas rural Area II required only up to 1 per cent adjustment. Thus, the analysis of the adjustment factors strongly suggest that while using the Chandra-Deming technique, the adjusted deaths in various age group, based on a single adjustment factor derived from the adjustment by the "total" would under estimate deaths at the younger ages and over estimate at the older ages. However, if the per cent of over all adjustment is very small (that is, rural Area II), the adjustment by the " total " may or may not produce the above effect.

3.5. Adjusted Life Tables.

Construction of the adjusted Life Tables was carried out as follows :

First : Computer computation of the adjusted deaths in broad age-groups was carried out by multiplying the " observed " deaths by the " adjustment factors " in the same age-group. These adjusted deaths would be equal to the number of deaths for the four categories of the Chandra-Deming Method as shown in Tables 3.2A to 3.2C.

Second : The adjusted deaths in five-year age group were calculated by splitting the above deaths (that is, those in broad age groups) into five-year age groups by using the proportions of the " observed " deaths within each broad age group of the

ten Project-Areas during the two Survey years. These proportions of the observed deaths in five-year age groups were applied to each Area by assuming that the patterns of deaths within a broad age group in each Area were identical to the whole Project-area.

Third : The next step was to calculate the adjusted Age Specific Death Rates in five-year age groups by dividing the adjusted deaths by the mid-year population in the same age-group. The mid-year population was not adjusted (see Chapter one).

Fourth : After obtaining all values of the adjusted Age specific Death Rates, those were converted into the values of n^q_x (probability of dying between age x and $x+n$), by using the formula :

$$n^q_x = \frac{2n \cdot \frac{m}{n}_x}{2 + \frac{m}{n}_x}$$

Where $\frac{m}{n}_x$ = Adjusted Age Specific Death Rate in age group $x - (x + n)$

n^q_x = probability of dying between age x and $(x+n)$

n = Class interval ($n = 5$, and for 4^q_1 , $n = 4$)

Fifth : Based on the values of n^q_x , Life Tables were constructed for various Areas, years and for both sexes by using the computer program.

The calculation of Infant Mortality Rate derived from the live births and infant deaths for a Survey period in most Project-Areas resulted in rates less than 100 per 1000 live births, which are lower than the expected rates. On the other hand, most of the conversion of m_0 to q_0 for most Project-areas by using the Reed-Merrell Method (Reed and Merrell, 1939) yield very high values of q_0 . Furthermore, the proportion of infant

deaths in a calendar year to births in previous Survey year (f) in the Project-areas fluctuated between 0.13 and 0.27, which is rather lower than the expected in developing countries, as a consequence of under enumeration of infant deaths. By considering these problems as mentioned above, it was decided to use a value (f) of 0.30 instead. This value has been suggested by Coale and Deming (1966 : 20) for countries where the level of the Infant Mortality Rate is over 100 per 1000 live births.

The calculation of Infant Mortality Rate (q_0) was done as follows:

$$q_0 = \frac{m_0}{1 + (1-f) m_0}$$

where : q_0 = probability of dying between age 0 and 1.

m_0 = adjusted Age-Specific Death Rate at age 0

f = the proportion of infant deaths in a calendar year to births in the previous Survey years.

The ${}_5L_{80}$ is calculated by multiplying the value of ${}_1l_{80}$ (survivors at exact age 80) with the logarithm value of ${}_1l_{80}$. In a simple formula ${}_5L_{80}$ is derived as follows : (United Nations, 1956 ; p: 23)

$${}_5L_{80} = {}_1l_{80} \log {}_1l_{80}$$

3.5.1. Probability of dying, n^q_x

Tables 3.5A to 3.5C show the unadjusted and adjusted values of probability of dying, n^q_x , based both on " age " and the " total " adjustment factors. The unadjusted and adjusted values of n^q_x for both adjustment seems to vary considerably amongst Survey years, Areas and age groups for both sexes. In all Areas, for both year and for both sexes, the adjusted values of n^q_x by the " age " and the " total " in almost all age groups are greater than those of the unadjusted values. This is

because most of the adjustment factors for both adjustment are greater than unity, as a result of the under enumeration of deaths in almost all age groups.

Looking at the value of the n^q_x in Tables 3.5A to 3.5C, it can be said that the adjusted values of n^q_x by the "age" at the younger ages less than 20 years are greater than those based on the adjustment by the "total". Conversely, at ages 50 onwards, the n^q_x value adjusted for the "age" are smaller than those adjusted for the "total". At adult ages between 20 and 49, the n^q_x values for both adjustment are more or less equal. The above situations, are mainly due to under estimation of deaths at the younger ages and over estimation of deaths at the older ages for the adjustment by the "total" as mentioned earlier in the analysis of the adjustment factors in point 3.4.

Considering Infant and Childhood Mortality together with mortality rates at other ages as shown in Tables 3.5A to 3.5C, it is obvious that the highest mortality level in all age groups, for all Areas, for both years and both sexes is obtained in rural Area III. The lowest mortality is for rural Area II, while the mortality for urban Area I at the younger ages less than 20 years and at the older ages from 55 and over lies between rural Areas II and III, tending to be closer to rural Area II. The exception is in the adult ages between 20 and 54, where mortality is lower in urban Area I than in rural Area II. This is possibly due to good access to modern facilities in urban areas, especially in most parts of Java with the result that many of the infective and the parasitic and respiratory diseases can be effectively controlled for persons in those adult age groups (Indonesia Panel, Committee on Population and Demography, 1979, p: 29). However, this particular benefit does not have a significant effect on the reduction of Infant and Childhood Mortality. The selected urban Areas (Jakarta, Cirebon Barat and Mataram) are adjacent to rural

areas, and their living conditions and life styles which affect the mortality at the very young ages are similar in characteristics to those of the rural population, particularly, their attitudes towards health conditions.

Looking at the mortality differentials for both years, Tables 3.5A to 3.5C show that the mortality levels of the second year are slightly higher than those of the third year. In most cases, the mortality levels of males exceed those for females in both the years.

AREA : I

TABLE 3.5A. PROBABILITY OF DYING n^{th} , BY AGE, SEX, SURVEY YEAR AND ADJUSTMENT
FOR URBAN AREA I OF THE 1975 - 1977 SVRP, AREA

AGE	M A L E S						F E M A L E S					
	Y E A R II			Y E A R III			Y E A R II			Y E A R III		
	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"
0	.114	.145	.122	.107	.146	.118	.110	.146	.119	.099	.108	.107
1 - 4	.057	.060	.062	.064	.085	.071	.061	.070	.066	.047	.054	.052
5 - 9	.017	.023	.023	.029	.031	.031	.023	.027	.027	.021	.022	.019
10 - 14	.009	.009	.009	.010	.013	.013	.009	.011	.011	.006	.009	.008
15 - 19	.017	.011	.012	.015	.016	.016	.016	.014	.014	.006	.010	.009
20 - 24	.008	.009	.009	.008	.009	.010	.008	.009	.009	.015	.009	.007
25 - 29	.012	.013	.013	.013	.014	.015	.012	.014	.014	.010	.014	.014
30 - 34	.014	.017	.016	.015	.019	.020	.014	.018	.018	.021	.020	.020
35 - 39	.022	.022	.022	.010	.025	.026	.016	.024	.024	.019	.024	.024
40 - 44	.035	.035	.034	.046	.036	.038	.041	.035	.036	.022	.034	.034
45 - 49	.042	.049	.048	.065	.053	.056	.054	.051	.052	.028	.031	.030
50 - 54	.074	.081	.086	.094	.090	.098	.084	.085	.092	.053	.069	.072
55 - 59	.117	.099	.105	.121	.115	.126	.119	.107	.115	.097	.091	.096
60 - 64	.193	.157	.165	.195	.179	.195	.194	.167	.179	.096	.135	.141
65 - 69	.200	.195	.206	.271	.208	.226	.237	.201	.215	.253	.200	.209
70 - 74	.323	.339	.356	.251	.376	.406	.288	.356	.379	.205	.284	.295
75 - 79	.347	.419	.438	.454	.469	.504	.402	.443	.469	.325	.301	.313

Source : Unpublished Computer Printouts of The SVRP, 1975 - 1977.

AREA : II

TABLE 3.58. PROBABILITY OF DYING, n^{th} , BY AGE, SEX SURVEY YEAR AND ADJUSTMENT
FOR RURAL AREA II OF THE 1975 - 1977 SVRP AREA

A G E		M A L E S												F E M A L E S											
		Y E A R II						Y E A R III						Y E A R II + III											
		Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"	Un- adjus ted	Adjus ted by the "age"	Adjus ted by the "total"									
0	.128	.132	.128	.101	.106	.102	.112	.117	.114	.130	.133	.130	.099	.107	.100	.112	.115	.113							
1 - 4	.050	.050	.050	.056	.057	.056	.053	.053	.053	.062	.062	.062	.035	.035	.035	.049	.049	.049							
5 - 9	.021	.018	.018	.018	.018	.018	.019	.018	.018	.020	.019	.019	.011	.016	.016	.015	.017	.017							
10 - 14	.007	.007	.007	.007	.007	.007	.007	.007	.007	.009	.008	.008	.009	.007	.007	.009	.008	.008							
15 - 19	.007	.011	.011	.012	.011	.011	.010	.011	.011	.010	.011	.011	.012	.009	.009	.011	.010	.010							
20 - 24	.018	.016	.016	.012	.014	.014	.015	.015	.015	.016	.015	.014	.010	.010	.010	.011	.012	.012							
25 - 29	.019	.023	.023	.015	.021	.021	.017	.022	.022	.011	.021	.020	.017	.015	.015	.016	.014	.018							
30 - 34	.033	.027	.027	.025	.023	.023	.029	.025	.025	.029	.028	.028	.025	.019	.019	.027	.023	.024							
35 - 39	.037	.031	.031	.020	.028	.028	.028	.029	.030	.035	.027	.027	.017	.020	.021	.026	.024	.024							
40 - 44	.043	.045	.045	.047	.041	.041	.045	.043	.043	.041	.039	.039	.024	.029	.029	.033	.034	.034							
45 - 49	.045	.056	.056	.062	.051	.052	.054	.054	.054	.029	.035	.035	.025	.024	.025	.027	.029	.030							
50 - 54	.092	.108	.108	.085	.101	.102	.088	.105	.106	.053	.070	.070	.071	.088	.089	.062	.079	.080							
55 - 59	.114	.124	.124	.100	.119	.120	.107	.122	.123	.091	.081	.081	.088	.100	.101	.089	.091	.092							
60 - 64	.158	.165	.165	.140	.156	.157	.149	.160	.162	.112	.118	.118	.139	.154	.155	.125	.136	.137							
65 - 59	.182	.178	.178	.159	.174	.175	.171	.176	.178	.137	.162	.162	.241	.192	.193	.191	.177	.179							
70 - 74	.225	.247	.247	.307	.264	.266	.264	.255	.257	.258	.233	.233	.322	.297	.300	.289	.165	.167							
75 - 79	.355	.322	.322	.363	.315	.318	.359	.318	.321	.234	.244	.244	.304	.290	.293	.270	.168	.170							

Source : Unpublished Computations

Source : Unpublished Computer Printouts of the SVRP, 1975 - 1977.

AREA : III

TABLE. 3.5C. PROBABILITY OF DYING, ${}^nq_x$, BY AGE, SEX, SURVEY YEAR AND ADJUSTMENT FOR RURAL AREA III OF THE 1975 - 1977 SVRP AREA.

A G E		M A L E S												F E M A L E S					
		YEAR II			YEAR III			YEAR II + III			YEAR II \			YEAR III			YEAR II + III		
		Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"			
0	.149	.177	.160	.109	.136	.119	.127	.155	.138	.123	.144	.131	.108	.140	.122	.115	.143	.126	
1 - 4	.107	.114	.115	.096	.103	.105	.101	.108	.110	.096	.106	.103	.092	.104	.104	.094	.106	.103	
5 - 9	.034	.035	.035	.029	.034	.034	.032	.034	.034	.035	.032	.032	.028	.039	.035	.032	.035	.033	
10 - 14	.016	.017	.017	.016	.015	.015	.016	.016	.016	.018	.018	.019	.014	.022	.019	.016	.020	.019	
15 - 19	.024	.029	.029	.023	.026	.026	.023	.028	.028	.014	.024	.025	.032	.029	.026	.023	.027	.026	
20 - 24	.034	.036	.037	.037	.037	.038	.035	.036	.037	.031	.030	.032	.014	.026	.028	.022	.028	.030	
25 - 29	.044	.036	.037	.041	.038	.039	.043	.037	.038	.043	.035	.036	.030	.031	.033	.037	.033	.034	
30 - 34	.039	.042	.043	.033	.042	.043	.036	.042	.043	.046	.049	.052	.030	.039	.042	.038	.044	.046	
35 - 39	.054	.052	.053	.061	.054	.055	.058	.053	.054	.059	.052	.055	.038	.045	.048	.049	.049	.052	
40 - 44	.054	.070	.072	.058	.071	.073	.056	.071	.073	.079	.084	.088	.083	.071	.075	.081	.077	.082	
45 - 49	.105	.114	.117	.097	.112	.115	.101	.113	.116	.063	.104	.109	.096	.082	.087	.080	.092	.097	
50 - 54	.132	.099	.101	.091	.072	.074	.112	.085	.088	.079	.076	.079	.144	.069	.075	.113	.073	.076	
55 - 59	.200	.188	.193	.165	.145	.150	.182	.166	.172	.148	.119	.123	.113	.120	.130	.131	.120	.126	
60 - 64	.210	.213	.218	.144	.174	.179	.178	.163	.200	.265	.190	.195	.210	.164	.177	.236	.177	.185	
65 - 69	.259	.370	.379	.295	.305	.314	.277	.338	.348	.292	.344	.352	.202	.388	.414	.253	.166	.380	
70 - 74	.501	.520	.531	.538	.450	.463	.519	.486	.500	.515	.515	.526	.472	.508	.540	.494	.513	.531	
75 - 79	.809	.919	.933	.691	.942	.960	.762	.926	.945	.388	.732	.745	.282	.725	.764	.378	.731	.753	

SOURCE : Unpublished Computer Printouts of the SVRP, 1975 - 1977.

3.5.2. Expectation of life. ${}^0e_x$

The effect of the adjustments both by the "age" and the "total" can also be seen on the expectation of life, ${}^0e_x$. Compared to the unadjusted values, both adjusted values of ${}^0e_x$ are smaller, (Tables 3.5D to 3.5F), for the same reason as the adjusted values of ${}_nq_x$, that is most of the adjustment factors are greater than one as a consequence of the under enumeration of deaths in almost all age groups. Without exception, the reduction in expectation of life at birth, ${}^0e_x$, from the unadjusted values in all areas, for both years and both sexes adjusted by the "age" is greater than those adjusted by the "total". For instance, the reduction of the expectation of life at birth, ${}^0e_x$, for males for urban area I in the third year, because of the adjustment by the "age", is about 7 per cent, that is about 3.5 years compared to the unadjusted ${}^0e_x$. The reduction by the "total" is approximately half of the adjustment by the "age" (Table 3.5.D).

On the contrary, in general, the reduction in expectation of life, ${}^0e_x$, at ages 1 onwards adjusted by the "total" is greater than that by the "age", except for rural Area II for the second year for both sexes, where both adjustments produce equal effect on the reduction in the expectation of life at ages 1 and above.

FOR URBAN AREA I OF 1975 - 1977 SVRP AREA

Source : Unpublished Computer Printouts of the SVR, 1975 - 1977.

Source : Unpublished Computer Printouts of the SVR, 1975 - 1977.-

TABLE 3.5.E. EXPECTATION OF LIFE, e_x , BY AGE, SEX, SURVEY YEAR AND ADJUSTMENT FOR THE 1975-1977 SVRP AREA.

AGE	M A L E S						F E M A L E S					
	YEAR II			YEAR III			YEAR II			YEAR III		
	Unadjusted	Adjusted by the "age"	Adjusted by the "total"	Unadjusted	Adjusted by the "age"	Adjusted by the "total"	Unadjusted	Adjusted by the "age"	Adjusted by the "total"	Unadjusted	Adjusted by the "age"	Adjusted by the "total"
0	52.5	52.0	52.2	54.6	53.7	54.0	53.7	53.0	53.1	54.1	53.6	53.7
1 - 4	59.2	58.8	58.8	59.7	59.1	59.1	59.5	59.0	58.9	61.1	60.7	60.7
5 - 9	58.3	57.8	57.8	59.1	58.6	58.5	58.7	58.1	58.1	61.0	60.6	60.6
10 - 14	54.4	53.8	53.8	55.1	54.6	54.5	54.8	54.2	54.1	57.2	56.7	56.7
15 - 19	49.8	49.2	49.2	50.5	50.0	49.9	50.2	49.6	49.5	52.7	52.2	52.2
20 - 24	45.1	44.7	44.7	46.1	45.5	45.4	45.6	45.1	45.0	48.2	47.7	47.4
25 - 29	40.9	40.4	40.4	41.6	41.2	41.0	41.3	40.8	40.7	43.9	43.4	43.4
30 - 34	36.7	36.3	36.3	37.2	37.0	36.9	37.0	36.6	36.5	39.4	39.3	39.3
35 - 39	32.8	32.2	32.2	33.1	32.8	32.7	33.0	32.5	32.4	35.5	35.3	35.3
40 - 44	29.0	28.2	28.2	28.8	28.7	28.6	28.9	28.4	28.3	31.7	31.2	31.2
45 - 49	25.2	24.4	24.4	25.1	24.8	24.7	25.1	24.6	24.5	27.9	27.4	27.4
50 - 54	21.2	20.7	20.7	21.6	21.0	20.9	21.4	20.8	20.7	23.7	23.3	23.3
55 - 59	18.1	17.9	17.9	18.3	18.0	18.0	18.2	18.0	17.9	19.9	19.8	19.8
60 - 64	15.1	15.1	15.1	15.1	15.2	15.1	15.1	15.1	15.0	16.6	16.4	16.4
65 - 69	12.5	12.5	12.5	12.1	12.5	12.5	12.3	12.5	12.5	13.4	13.2	13.2
70 - 74	9.8	9.7	9.7	8.9	9.6	9.6	9.4	9.7	9.6	10.1	10.3	10.3
75 - 79	6.9	7.1	7.1	6.8	7.2	7.1	6.8	7.1	7.1	7.8	7.7	7.7
80	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.4	4.4	4.4

Source : Unpublished Computer Printouts of the SVRP, 1975 - 1977.

AREA : III

TABLE 3.5F. EXPECTATION OF LIFE, e_x BY AGE, SEX, SURVEY YEAR
AND ADJUSTMENT FOR THE 1975 - 1977 SVRP AREA.

A G E	M A L E S												F E M A L E S											
	YEAR II				YEAR III				YEAR II + III				YEAR II				YEAR III				YEAR II + III			
	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"	Un- adjus- ted	Adjus- ted by the "Age"	Adjus- ted by the "To- tal"
0	41.9	39.8	40.3	45.3	43.1	43.6	43.6	41.5	42.0	44.4	42.6	43.0	46.8	43.3	44.1	45.6	43.0	43.6						
1 - 4	48.1	47.2	46.9	49.8	48.9	48.4	48.9	48.1	47.6	49.7	48.8	48.5	51.4	49.5	49.2	50.5	49.1	48.9						
5 - 9	49.6	49.0	48.7	50.9	50.2	49.9	50.2	49.7	49.3	50.7	50.3	49.8	52.4	51.0	50.6	51.5	50.7	50.3						
10 - 14	46.3	45.7	45.4	47.4	46.9	46.5	46.8	46.3	45.9	47.5	46.9	46.4	48.9	47.9	47.4	48.1	47.4	46.9						
15 - 19	42.0	41.5	41.1	43.1	42.6	42.2	42.5	42.0	41.6	43.3	42.7	42.2	44.5	44.0	43.2	43.8	43.4	42.8						
20 - 24	37.9	37.6	37.3	39.0	38.7	38.3	38.5	38.2	37.8	38.9	38.8	38.2	40.9	40.2	39.3	39.8	39.5	38.8						
25 - 29	34.2	34.0	33.6	35.4	35.1	34.7	34.8	34.5	34.1	35.0	34.9	34.4	36.4	36.2	35.4	35.7	35.6	34.9						
30 - 34	30.6	30.2	29.8	31.8	31.4	31.0	31.2	30.7	30.4	31.5	31.1	30.6	32.5	32.3	31.5	31.9	31.7	31.1						
35 - 39	26.8	26.3	26.1	27.8	27.6	27.3	27.3	27.0	26.6	27.9	27.5	27.1	28.4	28.5	27.8	28.1	28.0	27.5						
40 - 44	23.2	22.6	22.4	24.5	24.0	23.7	23.8	23.3	23.0	24.5	23.9	23.6	24.4	24.7	24.0	24.4	24.3	23.9						
45 - 49	19.4	19.2	18.9	20.9	20.7	20.4	20.1	19.9	19.6	21.4	20.9	20.6	21.4	21.4	20.8	21.3	21.2	20.8						
50 - 54	16.3	16.3	16.1	17.8	18.0	17.7	17.0	17.1	16.9	17.7	18.0	17.8	18.4	18.1	17.5	18.0	18.1	17.7						
55 - 59	13.4	12.8	12.6	14.4	14.2	14.0	13.9	13.5	13.3	14.0	14.3	14.1	16.1	14.3	13.8	15.0	14.3	14.0						
60 - 64	11.2	10.2	10.1	11.7	11.2	11.0	11.4	10.7	10.5	11.0	10.9	10.7	12.8	10.9	10.4	11.8	10.9	10.6						
65 - 69	8.5	7.3	7.2	8.3	8.0	7.8	8.3	7.7	7.5	9.1	7.9	7.7	10.6	7.6	7.1	9.7	7.7	7.5						
70 - 74	5.5	5.1	5.0	5.7	5.4	5.3	5.6	5.3	5.1	6.8	5.7	5.6	7.6	5.8	5.4	7.2	5.7	5.5						
75 - 79	3.6	2.9	2.9	4.4	2.8	2.7	3.9	2.9	2.8	6.4	4.1	4.0	7.2	4.1	3.9	6.7	4.1	4.0						
80	3.3	2.8	2.7	3.5	2.9	2.7	3.4	2.9	2.7	3.8	3.4	3.4	4.0	3.5	3.3	3.9	3.4	3.4						

Source : Unpublished Computer Printouts of the SVRP, 1975 - 1977.

Table 3.5G. Average of the expectation of life for the second and third years of the 1975 - 1977 SVRP area by age, sex and Area

Age	Males			Females		
	Area I	Area II	Area III	Area I	Area II	Area III
0	50.4	53.0	41.5	55.0	55.4	43.0
1	58.0	59.0	48.1	61.2	61.6	49.1
5	58.2	58.1	49.7	60.3	60.7	50.7
20	45.9	45.1	38.2	47.6	47.6	39.5
50	20.3	20.8	17.1	21.5	22.3	18.1
60	13.7	15.1	10.7	14.7	15.6	10.9
70	8.1	9.7	5.3	9.2	9.9	5.7

Sources : Tables 3.5D, 3.5.E and 3.5F.

The analysis of the expectation of life, ${}^o e_x$, based on Table 3.5G, derived from Tables 3.5D to 3.5F, reveals that the lowest expectation of life for both sexes for infancy, childhood, adulthood and at old ages, which are represented by ${}^o e_0$, ${}^o e_1$, ${}^o e_{20}$ and ${}^o e_{50}$ are found in rural Area III, while the highest at those stages, except for adulthood, are found in rural Area II. The highest expectation of life at adulthood for both sexes is found in urban Area I, whereas in most cases, the expectation of life in most ages for urban Area I lies between rural Areas II and III.

The under enumeration of deaths is significantly different between age groups, it is better to accept the levels and patterns of mortality

produced by the life Tables adjusted by the " age " rather than the " total ".

3.6. Discussion.

A comparison of the mortality levels for both sexes of urban Area I with all the rural areas represented by Area IV (Tables 3.5H and 3.5I) shows that, in most age groups, the mortality levels of rural Area IV are higher than for urban Area I.

The exceptions are infant mortality for males in both years and for females in the third year, and in most of the older ages above 60 for both sexes.

In order to examine the levels and patterns of mortality within the 1975-1977 SVRP area for both sexes, the best way of avoiding the fluctuative differences of mortality levels in some age groups between two years, is to draw and compare the graphs of the probability of dying, n^q_x , adjusting by the " age " for the combination of the second and third years, with age on the abscissa and the value of n^q_x on the ordinate.

For both sexes (Figures 3 and 4), the mortality declines sharply from the youngest age 0 to the minimum age around 10-14. Between ages 15 and 49, the rates begin to increase gradually, and after age 50 there is a continuous increase in the rates.

Looking at Tables 3.5H and 3.5I and Figures 3 and 4, it can be said that the mortality pattern for each sex in each Area for both year is similar. By comparing the mortality patterns between males and females in each Area, the results are slightly different. Even though there are still some fluctuations in the mortality levels in some age groups, particularly for urban Area I and rural Area III, it seems that the mortality pattern

Table 3.5H Adjusted probability of dying, ${}_nq_x$ of the 1975-1977 SVRP by age, Area and Survey year for males
(per 1000)

Age	YEAR II					YEAR III					YEAR II and III				
	Area I	Area II	Area III	Area IV	Area V	Area I	Area II	Area III	Area IV	Area V	Area I	Area II	Area III	Area IV	Area V
0	145.4	132.1	176.7	144.6	142.6	145.9	106.5	136.2	115.6	122.6	145.7	116.7	155.4	128.2	130.6
1	59.7	50.0	113.6	74.0	69.4	84.7	57.4	102.6	75.7	76.5	69.7	53.3	107.9	74.8	72.6
5	22.7	17.8	35.3	24.5	24.1	30.7	18.4	34.0	24.1	25.9	26.8	18.1	34.3	24.4	25.0
10	9.2	7.2	16.9	10.6	10.2	12.8	7.4	15.3	10.1	10.9	11.1	7.3	15.9	10.4	10.5
15	11.4	11.0	29.1	16.9	15.1	15.7	11.5	26.4	16.3	16.1	13.6	11.3	27.5	16.7	15.6
20	8.7	16.0	35.9	22.2	16.7	9.2	14.2	36.8	21.2	16.4	9.0	15.1	36.4	21.6	16.7
25	13.3	22.9	36.3	28.1	22.7	14.2	20.6	38.3	27.4	22.6	13.8	21.7	37.3	27.6	22.8
30	16.6	26.6	42.0	32.6	27.0	18.8	23.1	41.7	30.4	26.6	17.7	24.9	41.8	31.3	26.9
35	22.5	31.0	51.5	38.7	33.4	24.8	27.8	53.8	37.5	33.6	23.7	29.4	52.7	38.0	33.6
40	34.6	44.9	70.4	54.9	48.5	35.9	40.6	71.4	52.8	47.6	35.3	42.8	70.9	53.6	48.3
45	48.8	56.4	114.2	75.8	67.3	53.2	51.1	111.9	72.2	66.7	51.0	53.8	113.0	73.2	67.3
50	81.5	108.5	98.6	104.5	97.9	90.0	101.3	71.7	90.3	90.2	85.4	104.8	84.6	97.3	94.0
55	99.1	124.5	187.7	139.1	127.2	115.5	119.3	145.4	124.9	122.2	106.7	121.9	166.3	132.1	124.7
60	156.8	164.7	2.217	176.9	171.5	178.6	156.0	173.5	159.6	164.4	167.0	160.3	193.2	168.3	168.0
65	195.3	178.3	310.1	213.7	208.8	207.7	173.8	304.7	196.3	199.3	200.9	176.1	337.8	205.2	204.1
70	339.2	247.0	520.4	296.9	305.0	376.0	263.9	449.7	296.7	315.0	356.5	255.0	486.1	296.8	309.8
75	419.0	321.6	918.6	406.7	408.7	469.0	314.9	941.8	384.5	404.6	442.6	318.3	926.4	396.0	406.7

Source: Unpublished Computer Printouts of the 1975-1977 SVRP.

Table 3.51 Adjusted probability of dying, n^q_x , of the 1975-1977 SVRP by age, Area and Survey year for Females.
(per 1000)

Age	YEAR II					YEAR III					YEAR II and III				
	Area I	Area II	Area III	Area IV	Area V	Area I	Area II	Area III	Area IV	Area V	Area I	Area II	Area III	Area IV	Area V
0	108.3	132.5	144.2	133.3	124.3	120.1	107.0	140.3	112.8	113.1	115.4	115.0	143.2	121.7	118.4
1	54.3	62.2	106.3	78.6	70.2	46.7	34.7	104.0	61.8	57.0	50.5	49.2	105.6	69.7	63.7
5	21.7	19.0	31.8	24.2	22.8	21.9	15.6	38.7	23.8	23.1	21.5	17.3	35.2	23.8	22.9
10	9.5	8.5	18.3	11.9	10.8	9.4	6.9	21.7	11.6	10.9	9.3	7.7	20.0	11.6	10.8
15	10.1	10.8	24.5	15.4	13.2	10.1	8.8	29.4	15.0	13.2	10.0	9.8	26.9	15.1	13.2
20	9.5	14.2	30.5	20.0	16.5	7.6	10.4	26.0	15.8	13.0	8.7	12.3	28.2	17.9	14.6
25	14.5	20.5	34.6	26.2	22.7	11.9	15.4	30.8	21.4	18.4	13.4	18.0	32.6	23.9	20.4
30	19.9	27.6	49.2	36.1	31.3	16.7	19.2	39.3	27.0	24.0	18.6	23.3	44.0	31.5	27.3
35	24.2	27.2	52.5	36.8	33.5	19.8	20.4	45.3	29.6	26.9	22.4	23.9	48.8	33.3	29.9
40	34.1	39.0	84.1	54.8	49.2	28.5	28.6	70.8	43.2	39.0	31.8	33.8	77.3	49.1	43.7
45	30.5	34.8	103.8	54.2	47.3	24.6	24.3	82.0	40.5	35.8	28.0	29.4	92.3	47.3	41.0
50	69.0	70.4	76.4	72.0	70.6	77.5	87.7	69.3	82.1	80.6	73.3	79.0	73.1	77.1	75.6
55	91.5	81.4	119.5	89.9	89.6	100.1	100.5	120.3	104.6	103.1	95.9	91.0	120.4	97.2	96.4
60	134.8	118.2	190.1	133.1	132.6	159.7	154.0	163.8	156.1	156.7	147.1	135.7	177.0	144.5	144.5
65	200.2	162.0	344.2	192.2	193.0	213.6	191.7	388.0	219.0	117.0	207.2	177.2	365.8	205.7	205.1
70	283.7	233.0	515.0	278.3	277.9	332.9	297.2	508.0	331.0	330.7	307.9	264.6	513.4	304.3	303.9
75	300.6	244.5	731.7	305.0	301.7	305.8	290.2	725.3	340.7	329.7	303.5	267.8	730.8	323.1	316.1

Source: Unpublished Computer Printouts of the 1975-1977 SVRP.

per 1000

80

Figure: 3-

Pattern of the probability of dying, μ_x ,
in various areas of the 1975-1977 SURT for
the combination of the second and third years.
(D.C.S.)

- Urban Areas
- Rural Area I
- Rural Area II
- All rural Areas (Area I)
- All SURT Areas (Area I)

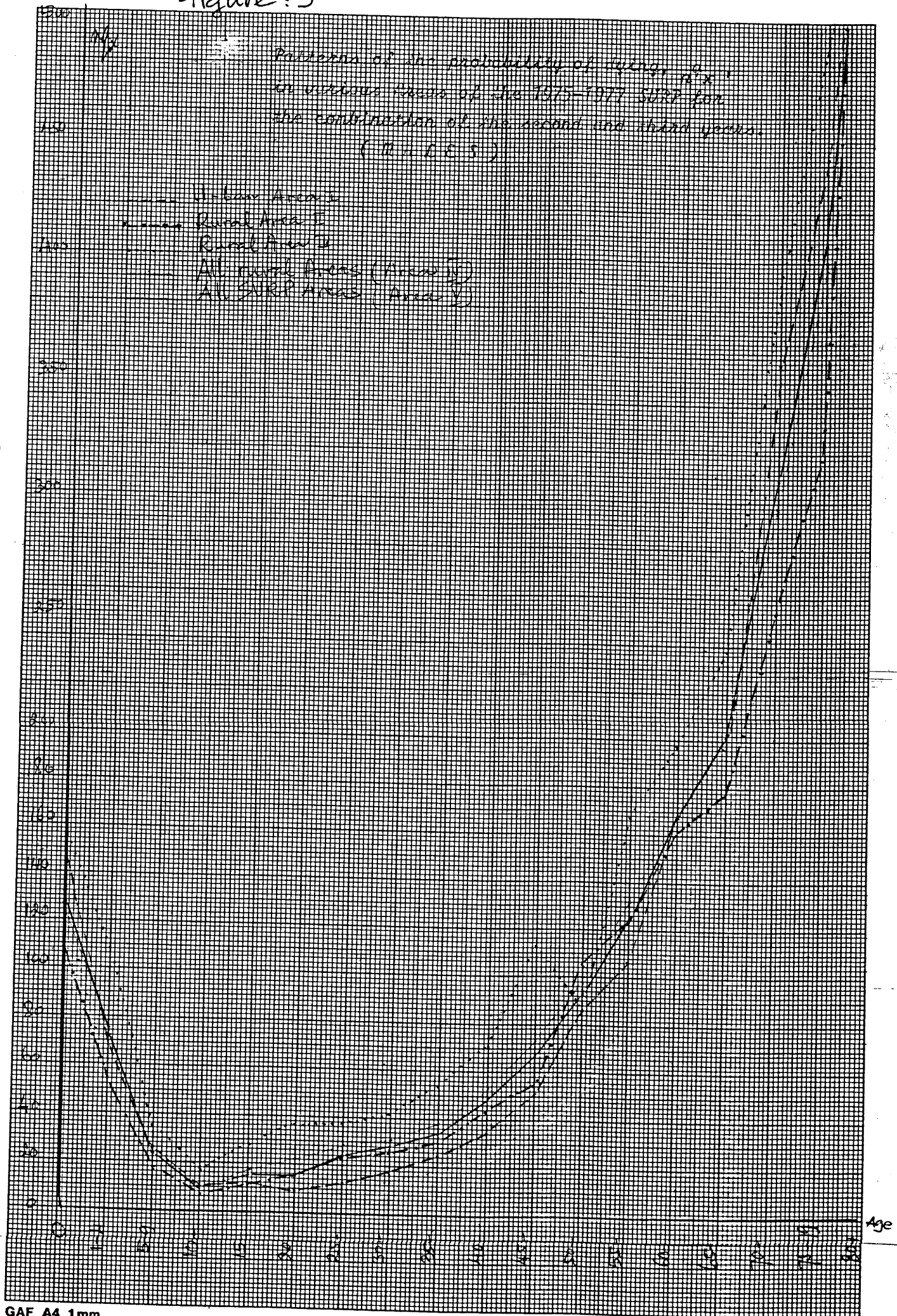


Figure : 4

Patterns of the probability of dying, p_x , in various areas of the 1975-1977 SRS for the combination of the second and third years.
(TEMPLES)

- Urban Areas
- Rural Areas
- Rural Areas
- All rural Areas (Area B)
- All SRS Areas (Area C)



Age

for males is smoother than for females.

From the above discussion, it can be concluded that there are differentials in mortality levels between sexes, urban-rural areas and Survey years. In most cases, the mortality levels of males exceed those of females, the rural levels are higher than the urban areas, and for the Survey years, the levels of the second year are slightly higher than those of third year. However, regarding mortality patterns, there is still a difference between sexes and urban-rural areas, but not between Survey years. The mortality patterns for both the males and the urban areas are smoother than those of the females and the rural areas, respectively. To be more specific, it is clear that the mortality pattern of the whole area of the 1975-1977 SVRP is best represented by Area V for the combination of both Survey years, which is smoother and more plausible than the others. The following discussion of the comparison of mortality patterns and levels with other studies is limited to the whole area of the 1975-1977 SVRP, that is Area V for the combination of both the Survey years, for besides the fact that it best represents the whole area of the 1975-1977 SVRP, there also no available separate Indonesia Life Tables for urban and rural areas.

CHAPTER IV

A COMPARISON OF THE VARIOUS MORTALITY ESTIMATES DERIVED ELSEWHERE AND IN THE PRESENT STUDY.

4.1. A comparison of the probability of dying, ${}_nq_x$

Although Area V for both years combined can represent the whole of the 1975-1977 SVRP area, it does not, however, represent the whole country in general, because of the non probability selection of the 1975-1977 SVRP areas. The size of the study population had also been too small for a representative study of age specific mortality rates in a country. Yet it can be argued that a comparison of mortality levels and patterns with other previous studies and a specific model is both necessary and relevant in this analysis. Due to a lack of mortality studies available in Indonesia, in this section comparison will only be made with certain important studies such as, the 1971 figures based on the Census Survival Method (Heligman, 1976), the 1973 Indonesia data (McDonald, 1978) based on three methods, i.e. : 1) Parental Survival Technique, 2) Intercensal Survival Technique, and 3) Direct estimation from deaths by age and sex for a fixed, retrospective period as recorded in the 1976 Intercensal Population Survey, and the 1974-1977 SVRP data based on the Chandra-Deming technique adjustment by the " total " (Gardiner, 1978). Furthermore comparisons were also made with the West Model as suggested by some earlier writers (Central Bureau of Statistics

, 1973, 1978^{b)} ¹¹⁾; McNicoll and Mamas, 1976; Cho et al, Hull and Sunaryo, 1978; Gardiner 1978 and McDonald, 1978).

In relation to the above suggestions, the West mortality level for both sexes was computed to be about 14.0, based on the expectation of live at birth, $^0e_0$, which was observed from the 1975-1977 Indonesian Sample Vital Registration Project.

In most cases, the mortality pattern of this study for both sexes differs slightly from the pattern obtained from other studies such as the 1971 and 1973 Indonesia figures, 1974-1975 SVRP adjusted by the " total " and even the West Model. The 1975-1977 SVRP shows a male pattern under age 10 and 65 onwards very similar to that the West Model; and in the case of females, it also tends to display quite a similar pattern to that of West Model, particularly under age 10 and between ages 55 and 74. Compared with other studies, the male mortality pattern between ages 35 and 49 and 65 onwards is similar to those of the 1971 and 1973 national figures and the 1974-1977 SVRP adjusted by the " total ". The male pattern under age 5 is also similar to the 1973 national data and the 1974-1977 figures.

Meanwhile, the female mortality pattern under age 5 and between age 55 to 74 shows a similar pattern to those of the 1973 Indonesia figures, and the 1974-1977 SVRP data. However, in age groups other than those mentioned above, the pattern for both sexes of this study is significantly different (Figures 5 and 6).

11). Based on the Panel Discussion of Population Projection held in the Hotel Indonesia, on 6-7 January 1978, which was attended by many institutions including the Central Bureau of Statistics, Demography Institute UI, LEKNAS - LIPI, the National Family Planning Board (BKKBN), Population Institute - GAMA and World Bank (IBRD), the West mortality level for Indonesia in the period 1971-1976. was considered to be around 12.0.

Figure 6.5

Patterns of the probability of dying, q_x ,
in various studies.
(M.A.L.E.S.)

SURPRISE-77 by "age"
West Model, Lund 1960

Indonesia, 1973

SRP, 1974-77 by the "model"

Indonesia, 1977

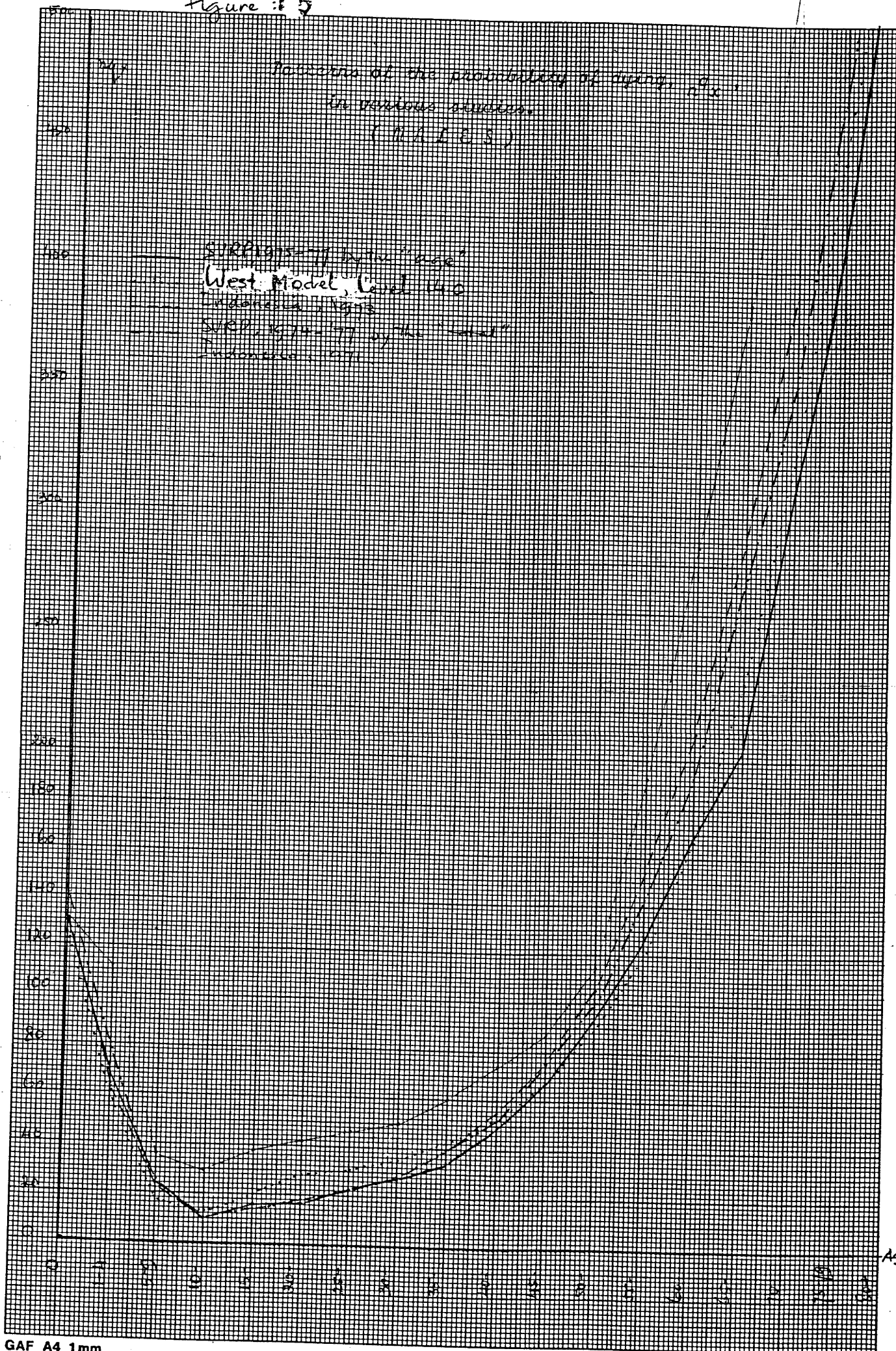
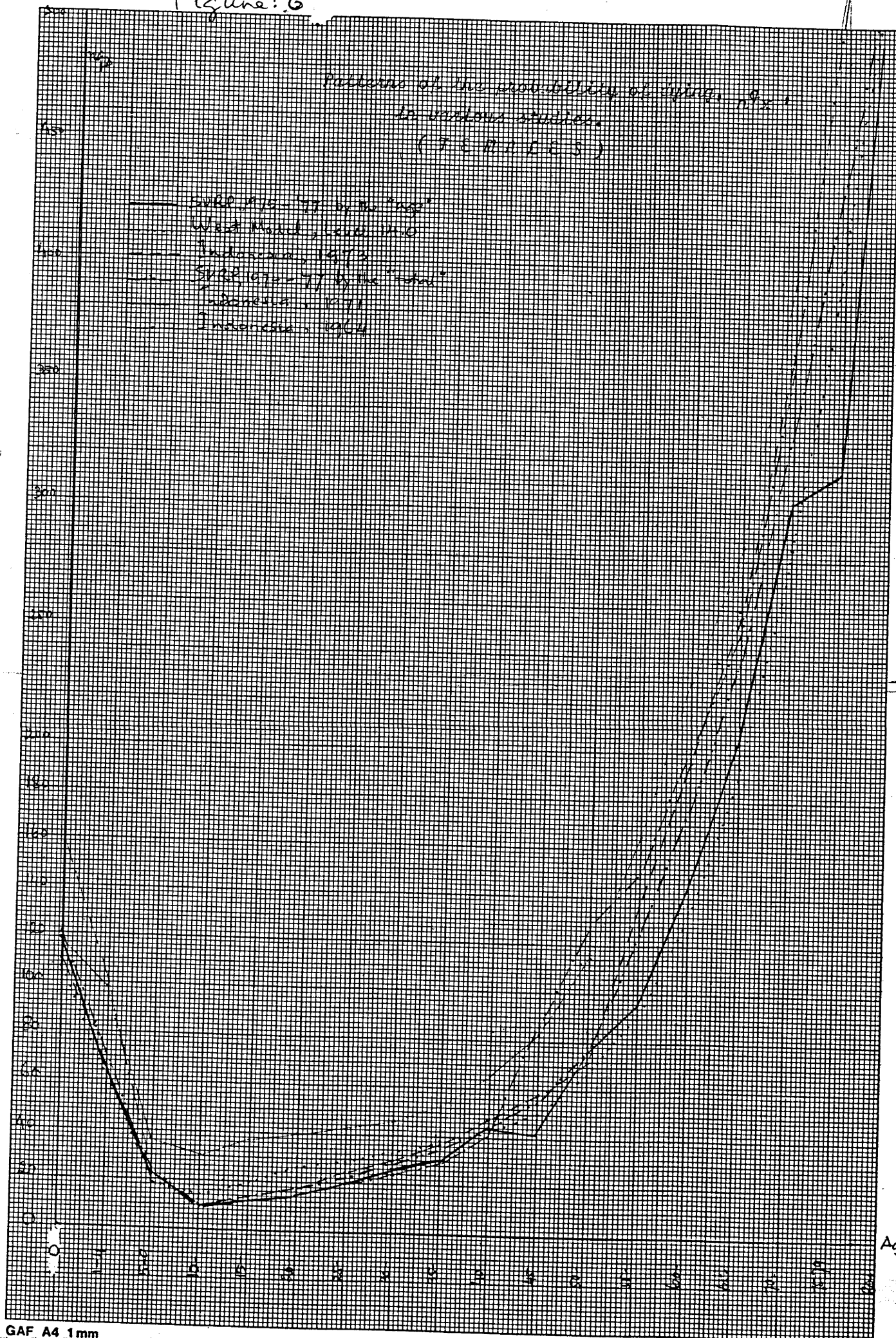


Figure: 6

Pattern of the probability of dying, q_x ,
in various studies.
(TEMPERATES)



Compared with the mortality level which corresponds to West level 14.0, the 1975-1977 SVRP mortality is higher among males at ages less than 10 years and lower at ages 10 to 44 and 65 onwards (Table 4.1A). In the case of females, the 1975-1977 SVRP mortality shows a tendency towards a higher female mortality at ages less than 10 years and at old ages 50 onwards, and a lower at ages 10 to 49 (Table 4.1B).

By looking at the infant mortality and childhood mortality between ages 1 and 4 for the whole area of the 1975-1977 SVRP, which is represented by Area V, it can be inferred that the rates are close to the estimated 1973 Indonesia figures ¹²⁾. Compared to the infant mortality of Indonesia from the 1971 Census figures, that is 152.2 and 128.9 per 1.000 for males and females, respectively (Cho, et al, 1976, p. : 62), the infant mortality obtained from the 1971 Indonesia data appears to be very high. This is primarily due to the difference in time period of the different estimates of infant mortality and the substantial under counting of number of children ever born and still living because a large proportion of women without stated responses were assumed to have no children. (H u l l and S u n a r y o, 1978, pp : 15-18).

12) . Infant mortality in 1973 in Indonesia for males and females were estimated to be 130.0 and 110.0 per 1.000 respectively, and the childhood mortality for males and females were 63.2 and 65.2 per 1000 respectively. (Indonesia Panel, Committee on Population and Demography, p : 13).

Table 4.1A Probability of dying, ${}_nq_x$, for males from various studies

Age	Probability of dying, ${}_nq_x$:				
	West ⁵⁾ Model level 14.0	Indonesia 1971 ³⁾	Indonesia 1973 ⁴⁾	SVRP ²⁾ by the "total" 1974-1977	SVRP ¹⁾ by the "age" 1975-1977
0	.125	.132	.130	.140	.131
1	.061	.112	.063	.080	.073
5	.018	.037	.023	.023	.025
10	.013	.030	.011	.012	.011
15	.020	.038	.014	.014	.016
20	.028	.042	.018	.018	.017
25	.031	.046	.022	.022	.023
30	.035	.051	.028	.028	.027
35	.042	.060	.040	.039	.034
40	.052	.074	.055	.052	.048
45	.066	.097	.076	.072	.067
50	.088	.135	.105	.100	.094
55	.118	.193	.155	.143	.125
60	.167	.277	.211	.193	.168
65	.232	.382	.290	.263	.204
70	.326	.516	.389	.354	.310
75	.454	.661		.468	.407

Source: 1. Unpublished Computer Printouts of the SVRP, 1975-1977

2. Gardiner, 1978: 37

3. Heligman, 1976: 13

4. Indonesian Panel, Committee on Population and Demography, 1979: 13

5. U.N., 1967 : 87-88.

Table 4.1B Probability of dying, q_x for females from various studies.

Age	Probability of dying, nq_x :				
	West Model 5) level 14.0	Indonesia 1971 3)	Indonesia 1973 4)	SVRP 2) by the "total" 1974-1977	SVRP 1) by the "age" 1975-1977
0	.106	.118	.110	.121	.118
1	.061	.099	.065	.072	.064
5	.019	.037	.025	.024	.023
10	.014	.031	.011	.010	.011
15	.020	.037	.014	.013	.013
20	.026	.040	.018	.017	.015
25	.029	.043	.025	.023	.020
30	.033	.046	.030	.029	.027
35	.037	.053	.038	.035	.030
40	.042	.065	.047	.043	.044
45	.050	.083	.058	.054	.041
50	.067	.115	.082	.076	.076
55	.090	.165	.137	.124	.096
60	.132	.230	.197	.176	.145
65	.189	.306	.277	.248	.205
70	.282	.397	.266	.331	.304
75	.406	.530		.436	.316

- Sources:
1. Unpublished Computer Printouts of the SVRP, 1975-1977
 2. Gardiner, 1978: 39
 3. Heligman, 1976: 14
 4. Indonesia Panel, Committee on Population and Demography, 1979: 13
 5. U.N., 1967: 87-88.

Compared with 1973 Indonesia figures and the 1974-1977 SVRP adjusted by the "total", Tables 4.1A and 4.1B, show the mortality level of the 1975-1977 SVRP adjusted by the "age" under age 40 for both sexes, is close to both studies, whereas after age 40 the gap between this study and both the other studies becomes more significant. In most cases the mortality level for both sexes is lower from adolescence, age 20 onwards, and it is quite close for under age 20 compared with the 1973 Indonesia data. Compared with the 1974-1977 SVRP data, in general, the mortality for both sexes obtained from this study is lower. This is mainly due to the effect of the data of 1974 which has a higher mortality level compared to the 1975-1977 data. (Central Bureau of Statistics, 1976^b), p : 141 and 1979, p : 18).

The lower mortality level for the 1975-1977 SVRP compared with the 1973 national figures possibly relates to the actual situation in which, after three to four years, there was a slight decline in the mortality level. This situation can probably be supported by other research which suggests that since 1968 Indonesian mortality may have started to decline as a result of modern facilities, better nutrition, an increase in food production, especially rice, and more effective control of many diseases. (Departemen Penerangan, 1969, p : 50; United Nations, 1970, p : 57 and Heligman, 1976, p : 11). Another probable reason is the non probability selection of the 1975-1977 SVRP areas.

A slightly lower mortality level, particularly in adult ages, for the 1975-1977 SVRP compared to the accumulated three years of the 1974-1977 SVRP is mainly due to the adjustment by "age" which, in fact, strongly suggests the idea of the difference in under enumeration of

deaths in every age group. This further increases the observed probability of dying, ${}_nq_x$, particularly, in the youngest ages than in the adult and oldest ages ¹³⁾.

Compared to the Indonesia data, it is obvious that the mortality levels of the 1975-1977 SVRP are lower and more accurate for both sexes, as the 1971 data throws little or no light on mortality levels and pattern due to the heavy under counting and under statement as mentioned earlier in section 3.6.

13). Probably the picture for the youngest ages is not clear here.

The comparison does not consider the same period, whereas the data for this study covers only a two year period (1975 - 1977) rather than three years for the 1974-1977 SVRP adjusted by the "total".

4.2. A comparison of the expectation of life, ${}^0e_x$

From the comparison of the expectation of life, ${}^0e_x$, in Tables 4.2A and 4.2B, it is apparent that in all ages the expectation of life for the 1975-1977 SVRP is higher than figures obtained from other studies. In general, the ratio of the ${}^0e_x$ of the other studies to the 1975-1977 SVRP decreases with age. This means that the relative variation of the expectation of life between this study and others become greater in the older ages than in the younger ages (except the West model). In most cases, the ${}^0e_x$ ratio for the 1973 Indonesia data and the 1974 - 1977 SVRP figures to the 1975-1977 SVRP is greater for males than for females. The opposite situation however occurs for the ${}^0e_x$ ratio of the 1971 national figures, perhaps as a consequence of greater age mis-statement of females than for males for the 1971 data. This reasoning is reinforced by the computation of the Age Score Index and Myers' index of the 1971 data which indicates better age reporting for males than for females. The Age Score Indices for males and females are 45.3 and 51.0, and the Myers' Indices for males and females are 19.2 and 23.7, respectively (Central Bureau of Statistics, 1973, pp : 14-18 and ii).

By comparing the ratio of the ${}^0e_x$ in all ages, in general the expectation of life for the 1975 - 1977 SVRP area is closer to the West model rather than to other studies. A more detailed examination of the ${}^0e_0$ and ${}^0e_{20}$ which represent the key stages of infancy and adulthood respectively, shows that the highest expectation of life at those stages is obtained in the 1975 - 1977 SVRP area, or, in other words, the lowest mortality level particularly at adulthood and beyond is found in the 1975 - 1977 SVRP areas.

Table 4.2A A comparison of the expectation of life, e_x , of the 1975-1977 SVRP area with other studies for males

Age	Expectation of life, e_x					Ratio of the e_x of the other study to the 1975-1977 SVRP ($\frac{\text{other study}}{1975-1977 \text{ SVRP}}$)			
	West Model 1) Level 14.0	Indones- 1a 2) 1971	Indones- 1a 3) 1973	SVRP by the "total" 4) 1974-'75	SVRP by the "age" 5) 1975-'77	West Model Level 14.0	Indones- 1a 1971	Indones- 1a 1973	SVRP by the "total" 1974-'77
0	49.5	40.2	48.4	47.7	49.6	1.00	.81	.98	.96
1	55.5	45.2	54.6	54.3	56.0	.99	.81	.98	.92
5	55.0	46.8	54.2	54.9	56.3	.98	.88	.96	.98
10	51.0	43.6	50.4	51.2	52.6	.97	.83	.96	.97
15	46.6	39.6	46.0	46.8	48.2	.97	.82	.95	.97
20	42.5	36.3	41.6	42.4	43.9	.97	.83	.95	.97
25	38.7	32.8	37.3	38.2	39.6	.98	.83	.94	.96
30	34.8	29.3	33.1	34.0	35.5	.98	.83	.93	.96
35	31.0	25.7	29.0	29.9	31.4	.99	.82	.92	.95
40	27.2	22.2	25.1	26.0	27.4	.99	.81	.92	.95
45	23.6	18.7	21.4	22.3	23.6	1.00	.79	.91	.95
50	20.0	15.5	18.0	18.8	20.2	.99	.77	.89	.93
55	19.7	12.5	14.8	15.6	17.0	.98	.74	.87	.92
60	13.7	9.8	12.1	12.8	14.1	.97	.70	.86	.91
65	10.9	7.6	9.6	10.3	11.4	.96	.67	.84	.90
70	8.4	5.7	7.5	8.1	8.7	.97	.66	.86	.93
75	6.3	4.3	5.7	6.1	6.4	.98	.67	.89	.95

Sources: 1. United Nations, 1967, pp: 87-88

2. Helgman, 1976: p.13

3. Indonesia Panel, Committee on Population and Demography, 1979, p.13

4. Gardiner, 1978: p.37

-5. Unpublished Computer Printouts of the 1975-1977 SVRP.

Table 4.2B. A comparison of the expectation of life, $^{\circ}\text{ex}$, of the 1975-1977 SVRP area with other studies for females

Age	Expectation of life, $^{\circ}\text{ex}$:					Ratio of the $^{\circ}\text{ex}$ of the other study to the 1975-1977 SVRP ($\frac{\text{Other study}}{1975-1977 \text{ SVRP}}$)			
	West Model 1) Level 14.0	Indones- 1a 2) 1971	Indones- 1a 3) 1973	SVRP by the "total" 4) 1974-'77	SVRP by "age" 5) 1975-'77	West Model Level 14.0	Indones- 1a 1971	Indones- 1a 1973	SVRP by the "total" 1974-'77
0	52.5	43.0	50.4	50.4	52.5	1.00	.82	.96	.96
1	57.6	47.7	55.5	56.3	58.6	.98	.81	.95	.96
5	57.3	48.8	55.3	56.5	58.4	.98	.84	.95	.97
10	53.3	45.6	51.7	52.8	54.7	.97	.83	.95	.97
15	49.1	42.0	47.2	48.4	50.3	.98	.84	.94	.96
20	45.0	38.5	42.8	44.0	45.9	.98	.84	.93	.96
25	41.1	35.0	38.6	39.7	41.6	.99	.84	.93	.95
30	37.3	31.4	34.5	35.6	37.4	1.00	.84	.92	.95
35	35.5	27.8	30.5	31.6	33.4	1.00	.83	.91	.95
40	29.7	24.2	26.6	27.7	29.3	1.01	.83	.91	.95
45	27.7	20.7	22.7	23.8	25.5	1.09	.81	.89	.93
50	22.1	17.4	19.0	20.0	21.5	1.03	.81	.88	.93
55	18.5	14.3	15.5	16.4	18.1	1.02	.79	.86	.91
60	15.1	11.6	12.5	13.4	14.7	1.03	.79	.85	.91
65	12.0	9.3	10.0	10.8	11.8	1.02	.79	.85	.91
70	9.2	7.3	7.9	8.5	9.2	1.00	.79	.86	.92
75	6.8	5.5	6.0	6.4	7.1	.96	.77	.85	.90

Source: 1. United Nations, 1967, pp : 87-88

2. Heligman, 1976, p : 14
3. Indonesian Panel, Committee on Population and Demography, 1979, p : 13
4. Gardiner, 1978, p : 39
5. Unpublised Computer Printouts of the 1975-1977 SVRP.

4.3. A comparison of the Crude Death Rate

Table 4.3. shows that the adjustment by " age " raised the observed value of Crude Death Rate for the 1975 - 1977 SVRP area up to 13.5 per cent, compared with only 9.9 per cent for the adjustment by the " total ". This means that the adjustment by " age " positively raises the observed mortality level more than that by the adjustment by the "total", particularly, in those areas where the execution of either the Registration or Survey is not so good such as in urban Area I and rural area III

Table 4.3. A comparison of the unadjusted and adjusted Crude Death Rates for the areas of the 1975 - 1977 SVRP.

Area	Sex	Crude Death Rate			Increasing of CDR in %	
		Unadjus- ted/ob- served	Adjus- ted by "age"	Adjus- ted by "total"	Adjusted by " age " (4-3) x100%	Adjusted by "total" (5-3) x100%
1	2	3	4	5	6	7
Urban, Area I	m	10.4	11.8	11.3	13.5	8.7
	F	8.9	10.0	9.7	12.4	9.0
Rural, Area II	m	11.5	11.6	11.6	0.9	0.9
	F	10.2	10.3	10.3	1.0	1.0
Rural, Area III	m	15.7	17.2	17.1	9.6	8.3
	F	14.1	15.8	15.5	12.1	9.9
Rural, Areas II + III	m	13.0	13.5	13.4	3.9	3.1
or (Rural, Area IV)	F	11.6	12.0	12.0	3.5	3.5
Urban+Rural Areas or	m	12.2	12.9	12.7	5.7	4.1
(Areas I + II + III)	F	10.8	11.3	11.2	4.6	3.7
or (Area V)	m+F	11.5	12.1	11.9	5.2	4.0

Source : Unpublished Computer Printouts of the 1975-1977 SVRP.

notes : m = males

F = Females

The adjusted Crude Death Rate for both sexes from the whole area of this study, that is, 12.1 per 1000, seems to be lower than the last 1973 Indonesia estimate made by the Indonesia Panel of the Committee on Population and Demography (1979 : 12) where the Crude Death Rate for both sexes at the end of 1973 was 15.0 per 1000. This lower mortality level of the 1975 - 1977 SVRP area compared to the 1973 national figures, is due the actual situation of a slight decline in the mortality level and perhaps also due to the small non-probability selection of the sample areas of the 1975 - 1977 SVRP, as explained earlier in this Chapter.

The results of the comparison of the probability of dying, ${}_nq_x$, and the expectation of life, ${}_0e_x$, at all age groups between this study and other studies elsewhere, would appear to indicate that the 1975-1977 SVRP life Tables adjusted by " age " produced here are more likely to provide a good current indication of the mortality patterns and level in some areas of Indonesia. This conclusion is similar to the suggestion of the Indonesia Panel, Committee on Population and Demography (1979 : 9). Although the 1975-1977 SVRP area cannot necessarily be taken as representative of Indonesia as a whole, it probably provides the best current indication of the age pattern of mortality in Indonesia.

CHAPTER V.

CONCLUSION

In developing countries such as most Asian and African countries, certain difficulties can hamper and retard the effectiveness of the execution of either the Registration or the Survey. These problems may have a direct effect on the under counting of vital events especially Registration.

In general, the findings of this study of the 1975 - 1977 SVRP suggest that the application of a certain adjustment such as the Chandra-Deming technique to all specific age groups makes it possible to estimate the under enumeration of deaths relatively easily. The findings reveal that, in all Areas, in most age groups and for both sexes, the completeness of reported deaths covered by the Survey is superior to that of the Registration. Furthermore, there is a negative relationship between the completeness of matched deaths and missed deaths, as the percentage of matched deaths increases as age at death increases; on the other hand, the percentage of missed death decreases as age increases.

In relation to the adjustment factors by "age", there is a considerable variation between Areas, sexes and years. Furthermore, the higher adjustment factors are for younger ages, whereas the lower factors are for older ages. There is some argument for applying the adjustment by "age" rather than by the "total" in that under enumeration of deaths is significantly different between age groups, thus producing a different effect on the increasing mortality levels, particularly in the younger and older ages.

The mortality levels and patterns within the 1975 - 1977 SVRP area can be summarized as follows :

1. There are differentials in mortality levels between sexes, urban-rural areas and Survey years. The male mortality exceeds that of females. In most cases, the mortality of rural areas is higher than for the urban areas, and the mortality of the second year is slightly higher than the third year.
2. There is still a different in mortality patterns between sexes and urban-rural areas, but not between Survey years.

By applying the adjustment by " age " , the broad mortality pattern of the 1975 - 1977 SVRP changed significantly, especially in the younger ages under 25. This has been observed particularly in Areas which have a higher under counting of deaths either in the Registration or the Survey. This argument is somewhat different to the pattern described by Gardiner (1978), where his preliminary analysis indicates that the broad mortality pattern will remain unchanged when applying the adjustment by " age " .

The mortality pattern of the whole area of the 1975 - 1977 SVRP for both sexes, differs slightly from the patterns obtained from other studies such as the 1971 and 1973 Indonesia data and the 1974 - 1977 SVRP adjusted by the "total" and even the West pattern. In one specific case, the 1975 - 1977 SVRP shows a mortality pattern under age 10 very similar to that of West for both sexes. Furthermore, the pattern of this study at old ages is also rather close to the West pattern, particularly in the case of males. Meanwhile, the mortality pattern under age 5 for both sexes of this study is also very similar to the 1973 national data and the 1974 - 1977 SVRP figures adjusted by the " total " .

Considering the mortality level which corresponds to the West level 14.0, the 1975 - 1977 SVRP shows a higher mortality at younger ages under 10 and older ages 50 onwards, and a lower level at ages 10 to 44. From the present analysis, it may be possible to conclude that the level at older ages in this study area seemed rather high in relation to childhood mortality, compared with West life Tables. However, this high level is confirmed in certain previous studies such as Bakir (1974) , Heligman (1976) and Mc Donald and Sontosudarmo (1976). The lower mortality level between ages 10 and 44 is also confirmed in the independent analysis of the data from the 1973 national figures and the 1974 - 1977 SVRP adjusted by the " total ", which may be a justification of the claim that the mortality pattern and level obtained in this study seem to be a good indication of mortality patterns and levels in most areas in Indonesia.

The final conclusion related to the mortality level of the whole area of the 1975 - 1977 SVRP in general, even if both systems of Registration and Survey are deficient to some degree, is that this deficiency can be estimated by the application of the dual - system estimation procedure (that is the Chandra - Deming technique), which yields plausible mortality level, a crude Death Rate of 12.1 per thousand population for both sexes and an expectation of life at birth 49.6 for males and 52.5 for females.

References

ALDEN SPEARE, 1976.

Quasi Stable Population Method for Adjusting Age Distribution in Indonesia. LEKNAS, LIPI, Jakarta. (Mimeographed)

BAKIR, Siti Zainab, 1974..

" Perkiraan Tingkat Kelahiran dan Kematian Penduduk Sumatera Selatan ", Majalah Demografi Indonesia, Year 2, No. 4, Jakarta, pp : 63-90.

CENTRAL BUREAU OF STATISTICS, 1973.

Proyeksi Penduduk Indonesia 1971-1981. Serie K, No. 1, Jakarta. _____, 1974.

Organization and Method of the Indonesian Sample Vital Registration Projects. Technical Report Series, Monograph No. 1 Jakarta.

_____, 1976.

Analysis and Evaluation of the first year results of the Sample Vital Registration Projects. Technical Report Series, Monograph No. 2, Jakarta.

_____, 1976-1977.

Buku Pedoman Matching & Verifikasi. Tim Teknis Sample Registrasi Penduduk, Jakarta.

_____, 1976/1977

Analysis and Evaluation of the third year results of the Sample Vital Registration Projects. Technical Report Series, Monograph No. 4, Jakarta.

_____, 1977.

Laporan para Instruktur Pusat dan Daerah mengenai pelaksanaan Proyek Sample Registrasi Penduduk, 1974-1977. Biro Pusat Statistik, Jakarta. (Unpublished report).

_____, 1978 a)

Analysis and Evaluation of the second year results of the Sample Registration Project. Technical Report Series, Monograph No. 3, Jakarta.

_____, 1978 ^{b)}

Proyeksi Penduduk Indonesia 1976-2001, Serie K, No. 2, Jakarta.

_____, 1979.

Analisa dan Sample Registrasi Penduduk 1974-1977.

Tim Teknis Sample Registrasi Penduduk, Seri Laporan Teknis No.6, Jakarta.

CHANDRA SEKHAR, C and W, EDWARDS DEMING, 1949.

" On a Method of Evaluating Birth and Death and the Extent of Registration", Journal of the American Statistical Association, Vol 44, 1949, pp : 101-115.

CHO, Lee-Jay, SAM SUHARTO, McNICOLL, G and MAMAS, SGM, 1976.

Estimates of Fertility and Mortality in Indonesia Based on the 1971 Census, 1971 Census Publication, SP 76-LO2, Central Bureau of Statistics, Jakarta.

COALE, Ansley and DEMENY, P, 1968.

Regional Model Life Tables and Stable Population, Princeton University Press. Princeton.

DEPARTEMEN PENERANGAN, 1969

Rencana Pembangunan Lima Tahun Pertama, 1969/1970 - 1973/1974
Jilid 20. Jakarta.

GARDINER, Peter, 1978

" Age Pattern of Mortality in Indonesia : An Analysis of results of the Indonesian Sample Vital Registration Project 1974-1977 ".
Working Paper prepared for the Indonesia Panel of the Committee on Population and Demography, National Research Council, Washington, DC.

GARDINER, P and SUGITO, 1977

" Attitudes and Conditions Underlying Vital Registration in Sample Registration Project Areas in Indonesia ".
Working paper prepared for Conference on Vital Statistics Practices in Asia, Manila, Philippines, May 9-13, 1977.

GAISIE, S.K., 1973

" Determination of Population Growth in Ghana ". A thesis prepared for the Degree of Doctor of Philosophy at the Australian National University. Canberra.

HELIGMAN, Larry, 1976.

Mortality in Indonesia 1961-1971. Population Institute, GAMA, Yogyakarta. This is a translation from : " Levels and Trends of Mortality in Indonesia 1961-1971 ", published by International Programs Center, U.S. Bureau Of Census, Washington, DC, 1974.

HULL, T.H. and SUNARYO, 1978

" Levels and Trends of Infant and Childhood Mortality in Indonesia. " Working paper prepared for the Indonesia Panel of the Committee on Population and Demography, National Research Council, Washington, DC.

INDONESIA PANEL OF THE COMMITTEE ON POPULATION AND DEMOGRAPHY, 1979.

" Draft Report Fertility and Mortality Trends in Indonesia ", National Research Council, Washington, DC.

KANNISTO, Vaino, 1963

" Population Increase in Indonesia, 1962 ". Central Bureau of Statistics. Jakarta.

KOZO, UEDA, 1964

" Population Increase in Indonesia, 1963 ". Statistical Research and Development Center, Central Bureau of Statistics, Jakarta.

KOZO UEDA, 1976

" Accuracy of Census Sex-Age Data in Asia and the Pacific Countries " Institute of Developing Economics, Tokyo.

MAMAS, S.G.M., 1968

" Angka2 Kelahiran dan Kematian Indonesia Hasil SUSENAS 1964/1965. " Pusat Penelitian dan Perkembangan Statistik, CBS, Jakarta"

MARKS, E.S. and SELTZER, W, and KROTKI, KJ. 1974.

Population Growth Estimation : A hand book of Vital Statistics Measurement. The Population Council, New York.

McDONALD, Peter, 1978.

" Adult Mortality in Indonesia : An Examination of Evidence from the 1961 and 1971 Censuses and the 1976 Intercensal Survey ".

Paper prepared for the Indonesia Panel of the Committee on Population and Demography, National Research Council, Washington, DC.

McDONALD, Peter, MOHAMMAD YASIN and JONES, GW, 1976

Levels and Trends in Fertility and Childhood Mortality in Indonesia. Demographic Institute, University of Indonesia, Jakarta.

McDONALD, Peter and ALIP SONTOSUDARMO, 1976

Response to Population Pressure : The Case of the Special Region of Yogyakarta. Gadjah Mada University Press, Yogyakarta.

REED, LJ and MERRELL, M (1939)

" A Short Method for Constructing an Abridged Life Table ".
The American Journal of Hygiene, Vol 30, No 2, pp 33 - 62,
September 1939.

RUZICKA, L.T. 1972

" Infant and Childhood Mortality in the Countries of South Asia: A Review ". The Australian National University, Canberra.

SELIZER, W and ADLAKHA, A, 1974

On the Effect of Errors in the Application of the Chandrasekar-Deming Technique. Laboratories for Population Statistics, Reprint Series No 14, The University Of North Carolina at Chapel Hill, Chapel Hill.

SINGUEFIELD, Jeanne C and AZWINI KARTOYO, 1977

" Using Retrospective Mortality Data to test the Application of Model Life Tables for Indonesia ", Majalah Demografi Indonesia, Year 4, No 7, Jakarta, pp : 25-41

SUHARTONO, Poniman, 1979

" Population and Vital Registration in Indonesia : An analysis based on the Indonesia Sample Vital Registration Project 1974-1977.

Paper submitted as part of the coursework for the Degree of Master of Arts in Demography, The ^{U.S.}Australian National University, Canberra.

SUHARTONO, Poniman and SUARDI, Hadma Ali, 1970.

" Estimation of Mortality of the Rural Population of Java-Madura 1964 ", The Demographic Training and Research Centre, Bombay.

UNITED NATIONS, 1956

Manual III. Methods for Population Projections by Sex and Age
Population Studies, No 25, ST/SO/Series A, NEW York.

, 1967

Manual IV. Methods of Estimating Basic Demographic Measures from
Incomplete Data, ST/SOA/Series A/42, New York.

, 1970

Economic Bulletin for Asia and the Far East, Vol 21, No 3,
Bangkok.

, 1971

Methodology of Demographic Sample Surveys. Statistical Papers,
Series M, No 51, New York.

, 1978

Population and Vital Statistics Report. Statistical Papers,
Series D, Vol XXIX, No 4, New York.

A P P E N D I X I

APPENDIX 1.1

Calculation of Age Specific Death Rates (unadjusted) per Centre by Age and Sex in the Second year of the 1975-1977 SVRP

(x 1000)

JAKARTA

Age	M A L E S			F E M A L E S		
	Deaths	Mid-year Population	Age Specific Death Rate	Deaths	Mid-year Population	Age Specific Death Rate
0	40	365	109.6	38	339	112.1
1- 4	28	2,084	13.4	20	2,035	9.8
5-19	17	6,248	2.7	15	6,294	2.4
20-49	24	6,834	3.5	19	6,166	3.1
50+	33	1,038	31.8	26	982	26.5
Total	142	16,897*	8.4	118	16,135*	7.3

CIREBON BARAT

0	34	252	134.9	29	287	101.0
1- 4	24	1,786	13.4	21	1,651	12.7
5-19	21	6,149	3.4	13	6,015	2.2
20-49	23	5,899	3.9	26	6,819	3.8
50+	61	1,653	36.9	62	2,023	30.6
Total	163	15,970*	10.2	151	16,822*	9.0

CIEMAS

0	55	346	159.0	38	345	110.1
1- 4	59	2,441	24.2	48	2,430	19.8
5-19	31	7,715	4.0	25	7,184	3.5
20-49	48	5,991	8.0	40	6,727	5.9
50+	41	1,293	31.7	19	843	22.5
Total	234	17,921*	13.1	170	17,654*	9.6

KANDANG SERANG

0	37	213	173.7	35	202	173.3
1- 4	37	1,032	35.9	38	973	39.1
5-19	30	2,953	10.2	29	3,791	7.6
20-49	59	4,246	13.9	70	4,755	14.7
50+	59	722	81.7	58	942	61.6
Total	222	10,179*	21.8	230	10,677*	21.5

NGANTANG

0	32	269	119.0	39	256	152.3
1- 4	15	2,150	7.0	28	2,107	13.3
5-19	21	8,944	2.3	22	8,506	2.6
20-49	51	8,596	5.9	57	9,363	6.1
50+	110	3,014	36.5	105	3,388	31.0
Total	229	22,993*	10.0	251	23,641*	10.6

APPENDIX 1.1 Contd.

SORKAM

0	33	220	150.0	34	235	144.7
1- 4	34	1,414	24.0	29	1,348	21.5
5-19	15	3,819	3.9	10	3,841	2.6
20-49	21	2,759	7.6	14	3,204	4.4
50+	47	882	53.3	27	875	30.9
Total	150	9,178*	16.3	114	9,596*	11.9

SUNGAI PINANG

0	9	52	173.1	8	50	160.0
1- 4	12	346	34.7	10	373	26.8
5-19	5	984	5.1	6	916	6.6
20-49	14	1,025	13.7	21	1,061	19.8
50+	16	210	76.2	9	154	58.4
Total	56	2,623*	21.3	54	2,559*	21.0

CINA

0	22	147	149.7	22	150	146.7
1- 4	22	1,225	18.0	25	1,161	21.5
5-19	9	2,995	3.0	10	2,806	3.6
20-49	29	2,811	10.3	25	3,554	7.0
50+	28	682	41.1	25	848	29.5
Total	110	8,132*	13.5	107	8,714*	12.3

BANJARANGKAN

0	33	208	158.7	23	179	128.5
1- 4	9	1,392	6.5	12	1,202	10.0
5-19	7	4,946	1.4	12	4,948	2.4
20-49	20	4,851	4.1	18	5,557	3.2
50+	65	1,879	34.6	52	2,049	25.4
Total	134	13,276*	10.1	117	13,939*	8.4

MATARAM

0	15	92	163.0	12	102	117.6
1- 4	16	660	24.2	12	616	19.5
5-19	3	1,999	1.5	5	1,862	2.7
20-49	10	1,905	5.2	8	1,726	4.6
50+	13	357	36.4	21	431	48.7
Total	57	5,016*	11.4	58	4,744*	12.2

ALL CENTRES

0	310	2,164	143.3	278	2,145	129.6
1- 4	256	14,530	17.6	243	13,896	17.5
5-19	159	46,752	3.4	147	46,163	3.2
20-49	299	44,917	6.7	298	48,932	6.1
50+	473	11,730	40.3	404	12,535	32.2
Total	1,497	122,185	12.3	1,370	124,481	11.0

Note: * Including "unknown".

106

APPENDIX 1.2

Calculation of Age Specific Death Rates (unadjusted) per centre by Age and Sex in the Third Year of the 1975-1977 SVRP

(x 1000)

JAKARTA

Age	M A L E S			F E M A L E S		
	Deaths	Mid-year Population	Age Specific Death Rate	Deaths	Mid-year Population	Age Specific Death Rate
0	54	451	119.7	44	430	102.3
1- 4	35	2,109	16.6	13	2,078	6.3
5-19	28	6,271	4.5	16	6,338	2.5
20-49	32	6,863	4.7	19	6,262	3.0
50+	35	1,061	33.0	29	987	29.4
Total	184	16,872*	10.9	121	16,221*	7.5

CIREBON BARAT

0	41	350	117.1	37	353	104.8
1- 4	29	1,751	16.6	27	1,649	16.4
5-19	23	5,996	3.8	17	6,018	2.8
20-49	26	6,125	4.2	21	6,667	3.1
50+	71	1,668	42.6	86	2,056	41.8
Total	190	15,974*	11.9	188	16,822*	11.2

CIEMAS

0	39	451	86.5	37	409	90.5
1- 4	49	2,621	18.7	52	2,533	20.5
5-19	27	7,830	3.4	33	7,278	4.5
20-49	53	6,062	8.7	46	6,825	6.7
50+	31	1,312	23.6	23	9.7	25.1
Total	199	18,343*	10.8	191	18,030	10.6

KANDANG SERANG

0	39	233	167.4	36	237	151.9
1- 4	42	1,084	38.7	35	999	35.0
5-19	21	3,995	5.3	16	3,831	4.2
20-49	54	4,252	12.7	46	4,775	9.6
50+	42	697	60.3	48	926	51.8
Total	198	10,265*	19.3	181	10,773*	16.8

NGANTANG

0	39	239	163.2	39	233	167.4
1- 4	32	1,993	16.1	15	1,932	7.8
5-19	18	8,980	2.0	16	8,533	1.9
20-49	43	8,585	5.0	30	9,409	3.2
50+	129	3,041	42.4	160	3,386	47.3
Total	261	22,873*	11.4	260	23,522*	11.1

APPENDIX 1.2 (contd.)

SORKAM

0	35	206	169.9	34	203	167.5
1- 4	24	1,393	17.2	11	1,306	8.4
5-19	12	3,826	3.1	4	3,891	1.0
20-49	16	2,775	5.8	8	3,214	2.5
50+	27	914	29.5	27	896	30.1
Total	114	9,257*	12.3	84	9,666*	8.7

SUNGAI PINANG

0	10	59	169.5	9	51	176.5
1- 4	11	325	33.8	7	364	19.2
5-19	13	1,003	13.0	11	940	11.7
20-49	15	1,039	14.4	14	1,060	13.2
50+	13	191	68.1	11	146	75.3
Total	62	2,619*	23.7	52	2,563*	20.3

CINA

0	23	140	164.3	25	148	168.9
1- 4	21	1,135	18.5	12	1,128	10.6
5-19	15	3,074	4.9	14	2,825	5.0
20-49	30	2,766	10.8	25	3,548	7.0
50+	28	672	41.7	23	805	28.6
Total	117	7,989*	14.6	99	8,611*	11.5

BANJARANGKAN

0	31	183	169.4	25	168	148.8
1- 4	9	1,426	6.3	12	1,259	9.5
5-19	8	5,011	1.6	10	4,976	2.0
20-49	19	4,988	3.8	20	5,672	3.5
50+	53	1,813	29.2	49	2,001	24.5
Total	120	13,426*	8.9	116	14,088*	8.2

MATARAM

0	14	86	162.8	12	95	126.3
1- 4	11	626	17.6	7	603	11.6
5-19	2	2,007	1.0	2	1,905	1.0
20-49	6	1,974	3.0	6	1,749	3.4
50+	17	365	46.6	11	442	24.9
Total	50	5,084*	9.8	38	4,820*	7.9

ALL CENTRES

0	325	2,398	135.5	298	2,327	128.1
1- 4	263	14,463	18.2	191	13,851	13.8
5-19	167	47,993	3.5	139	46,535	3.0
20-49	294	45,429	6.5	235	49,181	4.8
50+	446	11,734	38.0	467	12,562	37.2
total	1,495	122,702*	12.2	1,330	125,116*	10.6

Note: * Including "unknown".

Appendix I.3 Number of deaths by sex, Survey year and the calculation age in the Registration and Survey

Calculation age in the Registration and Survey	Second year		Third year		Second third years		
	Males	Females	Males	Females	Males	Females	Both sexes
Exact	637	485	574	462	1,211	947	2,158
Approximate	592	641	498	494	1,090	1,135	2,225
Rough	268	244	423	374	691	618	1,309
Total	1,497	1,370	1,495	1,330	2,992	2,700	5,692

Note: The percentage of rough age calculation = $\frac{1,309}{5,692} \times 100 = 23$.

Source: Unpublished Computer Printouts of the 1975-1977 SVRP

A P P E N D I X II

Note :

Year 1 refers to the second year of Survey or the observation from July 1975 to June 1976.

Year 2 refers to the third year of Survey or the observation from July 1976 to June 1977.

Year 3 refers to the combination of the second and third years or the observation from July 1975 to June 1977.

POPULATION DATA

ED
JP

MALES					FEMALES				
I	II	III	IV	V	I	II	III	IV	V
YEAR= 1									
720.	851.	614.	1445.	2185.	739.	826.	600.	1426.	2165.
4598.	6238.	3840.	10098.	14676.	4367.	5860.	3795.	9652.	14022.
5297.	8156.	5659.	13811.	19107.	5220.	7850.	5446.	13297.	18523.
4558.	7082.	4150.	11233.	15791.	4520.	6640.	3571.	10211.	14732.
4503.	5612.	2913.	8522.	13028.	4637.	5721.	2931.	8623.	13289.
3850.	4048.	1874.	5522.	9772.	3653.	4705.	2553.	7258.	10911.
2969.	3354.	2204.	5558.	8527.	2879.	3926.	2710.	6636.	9515.
2503.	3025.	1999.	5024.	7527.	2555.	3554.	2313.	5868.	8423.
2464.	3473.	2168.	5641.	8105.	2387.	4105.	2467.	6572.	8959.
1829.	2733.	1806.	4539.	6368.	1828.	3093.	1641.	4734.	6562.
1499.	2515.	1265.	3780.	5279.	1426.	2417.	916.	3333.	4758.
1042.	1767.	952.	2719.	3761.	1111.	2007.	788.	2795.	3906.
803.	1445.	451.	1896.	2699.	733.	1527.	436.	1963.	2697.
562.	1221.	448.	1669.	2231.	693.	1471.	376.	1847.	2541.
315.	799.	168.	967.	1282.	380.	885.	161.	1045.	1426.
208.	690.	135.	825.	1033.	307.	710.	115.	825.	1132.
95.	302.	33.	335.	430.	129.	302.	31.	333.	462.
68.	268.	49.	317.	385.	131.	291.	38.	329.	460.
37883.	53579.	30723.	84302.	122185.	37701.	55890.	30890.	86780.	124481.

YEAR= 2									
939.	1175.	745.	1920.	2859.	929.	1155.	699.	1854.	2782.
4510.	6000.	4039.	10039.	14549.	4365.	5666.	3906.	9573.	13937.
5334.	8210.	5526.	13736.	19070.	5172.	7852.	5437.	13290.	18462.
4494.	7116.	4309.	11424.	15918.	4531.	6633.	3676.	10309.	14840.
4448.	5599.	3025.	8623.	13071.	4643.	5779.	2966.	8745.	13388.
3909.	4073.	1881.	5954.	9863.	3726.	4690.	2540.	7230.	10956.
3019.	3322.	2144.	5466.	8485.	2876.	3826.	2587.	6413.	9290.
2385.	3115.	2067.	5183.	7567.	2502.	3732.	2466.	6198.	8701.
2413.	3458.	2130.	5587.	8000.	2397.	4008.	2434.	6442.	8839.
1908.	2702.	1828.	4530.	6438.	1802.	3090.	1666.	4757.	6559.
1482.	2484.	1358.	3812.	5294.	1459.	2536.	995.	3531.	4986.
1069.	1801.	994.	2796.	3865.	1116.	1977.	840.	2817.	3934.
778.	1433.	446.	1879.	2656.	755.	1518.	417.	1935.	2691.
555.	1227.	420.	1647.	2202.	653.	1372.	427.	1799.	2453.
335.	779.	159.	938.	1273.	401.	912.	153.	1045.	1446.
209.	606.	122.	729.	937.	288.	664.	113.	778.	1066.
94.	293.	40.	317.	411.	143.	307.	30.	337.	480.
61.	255.	40.	295.	356.	135.	281.	31.	312.	447.
37941.	53648.	31227.	84875.	122815.	37892.	55999.	31367.	87366.	125258.

YEAR= 3									
1659.	2026.	1359.	3386.	5045.	1668.	1981.	1299.	3280.	4947.
9107.	12239.	7878.	20117.	29224.	8731.	11526.	7702.	19228.	27959.
10631.	16366.	11181.	27547.	38178.	10398.	15703.	10884.	26587.	36984.
9052.	14198.	8459.	22657.	31709.	9051.	13273.	7247.	20521.	29572.
8951.	11211.	5938.	17149.	24099.	9279.	11500.	5898.	17398.	26677.
7759.	8121.	3755.	11876.	19635.	7380.	9395.	5093.	14488.	21867.
5988.	6676.	4349.	11024.	17012.	5755.	7752.	5297.	13049.	18804.
4888.	6140.	4066.	10206.	15094.	5057.	7287.	4779.	12066.	17123.
4877.	6930.	4298.	11228.	16105.	4784.	8113.	4901.	13014.	17798.

3737.	5435.	3633.	9069.	12806.	3631.	6183.	3308.	9491.	13122.
2981.	4999.	2593.	7592.	10573.	2880.	4953.	1911.	6864.	9744.
2111.	3568.	1946.	5514.	7625.	2227.	3984.	1629.	5613.	7840.
1581.	2878.	897.	3775.	5355.	1490.	3045.	853.	3898.	5388.
1117.	2448.	869.	3316.	4433.	1348.	2843.	803.	3646.	4994.
651.	1578.	326.	1905.	2555.	781.	1797.	294.	2091.	2872.
417.	1297.	257.	1554.	1970.	596.	1374.	229.	1603.	2198.
189.	595.	57.	652.	841.	272.	608.	62.	670.	942.
128.	523.	89.	612.	741.	266.	572.	70.	641.	907.
75824.	107227.	61950.	169177.	245000.	75593.	111889.	62257.	174146.	249739.

OBSERVED DEATH DATA

AGED
RCUP

	MALES					FEMALES				
	I	II	III	IV	V	I	II	III	IV	V
	YEAR= 1									
1	89.	120.	101.	221.	310.	79.	118.	81.	199.	278.
2	68.	80.	108.	186.	256.	53.	94.	96.	190.	243.
3	18.	34.	39.	73.	91.	22.	31.	39.	70.	92.
4	8.	10.	13.	23.	31.	5.	12.	13.	23.	30.
5	15.	8.	14.	22.	37.	6.	11.	18.	23.	30.
6	6.	15.	13.	28.	34.	11.	15.	16.	33.	25.
7	7.	13.	20.	33.	40.	6.	9.	24.	33.	42.
8	7.	20.	16.	36.	43.	11.	21.	22.	33.	39.
9	11.	26.	24.	50.	61.	9.	20.	20.	43.	54.
10	13.	24.	20.	44.	57.	8.	22.	30.	59.	68.
11	13.	33.	28.	51.	64.	8.	22.	27.	53.	61.
12	16.	34.	27.	61.	77.	14.	24.	12.	26.	34.
13	20.	35.	20.	55.	75.	15.	25.	13.	35.	47.
14	24.	42.	21.	63.	87.	15.	29.	14.	43.	58.
15	14.	32.	10.	42.	56.	14.	35.	23.	58.	72.
16	16.	35.	18.	53.	69.	22.	26.	11.	37.	59.
17	8.	26.	9.	35.	43.	10.	42.	16.	58.	72.
18	9.	46.	11.	57.	66.	22.	16.	3.	19.	29.
19	362.	623.	512.	1135.	1497.	327.	589.	454.	1043.	1370.

	YEAR= 2									
1	109.	128.	88.	216.	325.	93.	123.	82.	205.	298.
2	75.	86.	102.	188.	263.	47.	50.	94.	144.	191.
3	31.	29.	33.	62.	93.	19.	18.	31.	49.	68.
4	9.	10.	14.	24.	33.	8.	12.	10.	22.	30.
5	13.	14.	14.	28.	41.	8.	14.	19.	33.	41.
6	6.	10.	14.	24.	30.	5.	9.	7.	16.	21.
7	8.	10.	18.	28.	36.	5.	13.	16.	29.	37.
8	7.	16.	14.	30.	37.	8.	19.	15.	34.	39.
9	5.	14.	27.	41.	46.	5.	14.	19.	33.	38.
10	18.	26.	22.	48.	66.	10.	15.	29.	44.	54.
11	20.	32.	27.	59.	79.	13.	13.	20.	33.	46.
12	20.	30.	19.	51.	72.	20.	29.	26.	55.	75.
13	21.	32.	16.	46.	66.	12.	28.	10.	38.	50.
14	24.	37.	13.	50.	74.	21.	41.	20.	61.	82.
15	21.	27.	11.	38.	59.	15.	51.	6.	65.	71.
16	12.	44.	18.	62.	74.	19.	51.	14.	65.	84.
17	11.	26.	5.	31.	42.	17.	22.	2.	24.	41.
18	14.	41.	45.	45.	59.	22.	38.	4.	42.	64.
19	424.	612.	459.	1071.	1495.	347.	559.	424.	983.	1330.

	YEAR= 3									
1	198.	248.	189.	437.	635.	172.	241.	163.	404.	576.
2	143.	166.	210.	376.	519.	100.	144.	190.	334.	434.
3	49.	63.	72.	135.	184.	41.	49.	70.	119.	160.
4	17.	20.	27.	47.	64.	15.	24.	23.	47.	60.
5	28.	22.	28.	50.	78.	14.	25.	27.	52.	66.
6	12.	25.	27.	52.	64.	16.	24.	23.	47.	63.
7	15.	23.	38.	61.	76.	14.	22.	40.	62.	76.
8	14.	36.	30.	66.	80.	16.	40.	37.	77.	93.
9	16.	40.	51.	91.	107.	14.	43.	49.	92.	106.

31.	50.	42.	92.	123.	18.	41.	56.	97.	115.
33.	55.	55.	110.	143.	21.	27.	32.	59.	80.
37.	66.	46.	112.	149.	32.	51.	39.	90.	122.
40.	65.	36.	101.	141.	37.	57.	43.	81.	108.
48.	79.	34.	113.	161.	55.	76.	57.	119.	154.
35.	59.	21.	80.	115.	37.	76.	17.	93.	130.
28.	59.	36.	115.	143.	33.	93.	30.	123.	156.
19.	52.	14.	66.	85.	27.	38.	5.	43.	70.
23.	87.	15.	102.	125.	44.	77.	10.	87.	131.
786.	1235.	971.	2206.	2992.	674.	1148.	878.	2026.	2700.

AGED
GROUP

I II

MALES

IV

V

YEAR= 1

I II

FEMALES

IV

V

1	116.	124.	121.	234.	344.	87.	120.	96.	209.	295.
2	71.	80.	116.	194.	264.	61.	94.	107.	198.	255.
3	24.	29.	41.	69.	93.	23.	30.	35.	63.	86.
4	8.	10.	14.	24.	32.	9.	11.	13.	24.	32.
5	10.	12.	17.	29.	40.	9.	12.	15.	27.	35.
6	7.	13.	14.	27.	39.	7.	13.	16.	27.	36.
7	8.	16.	16.	32.	33.	8.	16.	19.	35.	44.
8	8.	16.	17.	33.	41.	10.	20.	23.	43.	54.
9	11.	22.	23.	45.	55.	12.	23.	27.	49.	61.
10	13.	25.	26.	51.	63.	13.	25.	29.	53.	66.
11	15.	29.	31.	60.	74.	15.	27.	31.	57.	72.
12	18.	41.	20.	60.	77.	16.	29.	33.	61.	77.
13	17.	38.	19.	57.	73.	14.	26.	31.	57.	72.
14	19.	44.	21.	65.	84.	20.	37.	44.	73.	86.
15	14.	31.	15.	46.	60.	17.	31.	37.	61.	77.
16	17.	39.	19.	58.	74.	20.	37.	44.	73.	86.
17	10.	23.	11.	34.	44.	9.	17.	24.	33.	44.
18	15.	34.	17.	50.	65.	17.	31.	45.	61.	77.
19	401.	627.	558.	1166.	1556.	361.	591.	488.	1068.	1418.

YEAR= 2

1	152.	136.	112.	242.	383.	122.	134.	108.	228.	343.
2	100.	89.	109.	195.	289.	52.	50.	107.	153.	204.
3	33.	31.	38.	67.	100.	23.	25.	43.	64.	86.
4	12.	11.	13.	23.	35.	9.	9.	16.	24.	32.
5	14.	13.	16.	28.	42.	9.	10.	18.	26.	36.
6	7.	12.	14.	26.	33.	6.	10.	13.	23.	29.
7	9.	14.	17.	30.	39.	8.	12.	16.	28.	35.
8	9.	15.	18.	32.	41.	10.	14.	20.	34.	42.
9	12.	19.	24.	43.	55.	10.	17.	23.	39.	48.
10	14.	22.	27.	49.	63.	10.	18.	24.	42.	52.
11	16.	26.	31.	57.	73.	18.	36.	46.	61.	83.
12	20.	38.	15.	53.	73.	16.	32.	43.	58.	77.
13	19.	36.	14.	50.	69.	23.	46.	53.	77.	95.
14	22.	42.	16.	57.	79.	19.	39.	49.	67.	88.
15	16.	30.	11.	41.	56.	23.	46.	53.	77.	95.
16	19.	37.	14.	51.	70.	10.	21.	28.	38.	51.
17	11.	22.	8.	30.	42.	19.	39.	49.	67.	88.
18	17.	32.	12.	44.	61.	39.	57.	77.	108.	141.
19	502.	623.	510.	1121.	1603.	392.	570.	492.	1034.	1415.

YEAR= 3

1	267.	258.	234.	476.	724.	210.	248.	205.	436.	639.
2	164.	160.	225.	391.	550.	113.	145.	215.	347.	460.
3	58.	60.	78.	136.	193.	45.	55.	78.	128.	171.
4	20.	21.	27.	47.	67.	17.	21.	29.	48.	64.
5	25.	25.	33.	58.	82.	19.	23.	32.	53.	71.
6	14.	23.	28.	52.	66.	13.	23.	29.	52.	64.
7	17.	29.	33.	62.	78.	16.	28.	35.	63.	78.
8	17.	31.	35.	65.	82.	19.	34.	43.	77.	95.
9	23.	41.	46.	87.	110.	22.	39.	49.	88.	108.
10	27.	47.	53.	100.	127.	23.	43.	53.	96.	117.
11	31.	55.	62.	116.	147.	16.	30.	37.	66.	82.
12	38.	79.	34.	113.	150.	34.	66.	25.	90.	123.
13	36.	75.	33.	107.	142.	30.	58.	22.	80.	109.
14	41.	85.	37.	122.	163.	43.	83.	31.	114.	134.
15	29.	61.	27.	85.	116.	36.	70.	26.	96.	134.
16	36.	76.	33.	108.	144.	43.	84.	32.	115.	158.
17	21.	45.	20.	64.	86.	19.	38.	14.	52.	71.
18	32.	66.	29.	93.	126.	36.	70.	27.	67.	92.
19	896.	1248.	1067.	2286.	3155.	755.	1157.	982.	2098.	2829.

ED
UP

MALES					FEMALES				
I	II	III	IV	V	I	II	III	IV	V
YEAR= 1									
124.	141.	164.	151.	142.	107.	143.	135.	140.	128.
15.	13.	28.	19.	17.	12.	16.	25.	20.	17.
3.	4.	7.	5.	5.	4.	2.	7.	5.	5.
2.	1.	3.	2.	2.	1.	2.	4.	2.	2.
2.	1.	5.	5.	3.	1.	2.	3.	2.	2.
7.	4.	7.	6.	5.	3.	3.	6.	4.	4.
2.	7.	9.	7.	6.	2.	2.	9.	5.	4.
0.	7.	8.	9.	6.	4.	6.	10.	7.	6.
0.	7.	11.	9.	8.	4.	7.	12.	9.	8.
1.	9.	11.	10.	9.	4.	8.	16.	11.	9.
2.	9.	22.	13.	12.	6.	6.	13.	8.	7.
3.	19.	28.	22.	20.	11.	11.	16.	13.	12.
4.	24.	44.	29.	28.	20.	19.	32.	22.	22.
5.	34.	47.	38.	39.	20.	24.	61.	31.	28.
6.	40.	60.	43.	44.	58.	29.	69.	35.	41.
7.	51.	134.	64.	67.	46.	59.	139.	70.	64.
8.	86.	271.	105.	100.	78.	53.	96.	57.	63.
9.	133.	223.	180.	171.	168.	134.	157.	137.	146.
10.	172.	17.	13.	12.	9.	11.	15.	12.	11.

YEAR= 2

116.	109.	118.	112.	114.	100.	107.	117.	111.	107.
17.	14.	23.	16.	18.	11.	9.	24.	15.	14.
6.	4.	6.	5.	5.	4.	2.	6.	4.	4.
2.	1.	3.	2.	2.	2.	2.	3.	2.	2.
3.	3.	5.	4.	3.	1.	2.	6.	4.	3.
3.	5.	8.	5.	4.	3.	3.	3.	2.	2.
3.	5.	7.	6.	5.	2.	5.	6.	5.	4.
2.	4.	13.	7.	6.	3.	3.	8.	5.	4.
9.	10.	12.	11.	10.	6.	5.	17.	9.	8.
13.	13.	20.	15.	15.	9.	5.	20.	9.	9.
20.	18.	19.	15.	19.	18.	15.	31.	20.	19.
26.	21.	36.	24.	25.	16.	18.	24.	20.	19.
43.	30.	31.	30.	34.	32.	30.	47.	24.	33.
63.	35.	69.	41.	46.	37.	55.	47.	54.	49.
57.	73.	147.	85.	79.	66.	77.	124.	84.	79.
117.	89.	211.	98.	102.	119.	72.	66.	71.	85.
231.	161.	101.	153.	166.	163.	135.	127.	135.	143.
11.	11.	15.	13.	12.	9.	10.	14.	11.	11.

YEAR= 3

119.	122.	139.	129.	126.	103.	122.	125.	123.	116.
16.	14.	27.	19.	18.	11.	12.	25.	17.	16.
5.	4.	6.	5.	5.	4.	3.	6.	4.	4.
3.	1.	3.	2.	2.	1.	2.	5.	2.	2.
2.	2.	5.	3.	3.	2.	3.	5.	3.	2.
2.	3.	7.	4.	4.	2.	3.	8.	5.	4.
3.	3.	9.	6.	5.	2.	5.	8.	6.	5.
3.	6.	7.	8.	7.	3.	5.	10.	7.	6.

8.	9.	12.	10.	10.	5.	7.	17.	10.	9.
11.	11.	21.	14.	14.	7.	5.	17.	9.	8.
18.	18.	24.	20.	20.	14.	13.	24.	16.	16.
25.	23.	40.	27.	26.	18.	19.	28.	21.	20.
54.	32.	39.	34.	36.	26.	27.	54.	33.	31.
54.	37.	64.	42.	45.	47.	42.	58.	44.	45.
67.	61.	140.	74.	73.	55.	68.	131.	77.	71.
101.	87.	246.	101.	101.	99.	62.	81.	64.	74.
179.	166.	168.	167.	169.	166.	135.	144.	136.	144.
10.	12.	16.	13.	12.	9.	10.	14.	12.	11.

Appendix 99.5

Adjustment

SEPARATION FACTOR DATA

ED
UP

MALES					FEMALES				
I	II	III	IV	V	I	II	III	IV	V
YEAR= 1									
130.	103.	120.	106.	111.	110.	102.	118.	105.	106.
104.	100.	107.	103.	103.	115.	100.	111.	104.	105.
105.	100.	109.	103.	104.	124.	100.	105.	102.	104.
109.	100.	105.	102.	102.	111.	100.	102.	101.	103.
102.	100.	105.	101.	101.	104.	100.	104.	101.	101.
YEAR= 2									
139.	106.	127.	112.	118.	131.	109.	132.	111.	115.
133.	103.	107.	105.	110.	111.	100.	114.	106.	107.
111.	102.	111.	104.	106.	117.	100.	128.	110.	111.
105.	100.	107.	103.	103.	105.	100.	107.	103.	103.
101.	100.	106.	101.	101.	102.	100.	105.	101.	101.
YEAR= 3									
135.	104.	124.	109.	114.	122.	103.	126.	108.	111.
115.	101.	107.	104.	106.	113.	101.	113.	104.	106.
109.	101.	109.	104.	105.	119.	100.	116.	105.	107.
107.	100.	106.	102.	103.	110.	100.	104.	102.	102.
101.	100.	105.	101.	101.	103.	100.	105.	101.	101.

Appendix II. 6

Adjusted OBSERVED DEATH RATES

AGED GROUP	MALES					FEMALES				
	I	II	III	IV	V	I	II	III	IV	V
YEAR= 1										
1	161.	145.	197.	160.	157.	118.	146.	159.	147.	136.
2	15.	13.	30.	19.	18.	14.	16.	28.	20.	18.
3	2.	4.	7.	5.	5.	4.	4.	6.	5.	5.
4	2.	1.	3.	2.	2.	2.	2.	4.	2.	2.
5	2.	2.	6.	3.	3.	2.	2.	5.	3.	3.
6	2.	3.	7.	4.	3.	2.	3.	6.	4.	3.
7	3.	5.	9.	6.	5.	3.	4.	7.	5.	5.
8	3.	5.	7.	7.	5.	4.	6.	10.	7.	6.
9	5.	6.	11.	8.	7.	5.	6.	11.	7.	7.
10	7.	9.	15.	11.	10.	7.	8.	18.	11.	10.
11	10.	12.	24.	16.	14.	6.	7.	22.	11.	10.
12	17.	23.	21.	22.	21.	14.	15.	16.	15.	15.
13	21.	27.	41.	30.	27.	19.	17.	25.	19.	19.
14	34.	36.	48.	39.	38.	29.	25.	42.	29.	28.
15	43.	39.	91.	48.	47.	44.	35.	83.	43.	43.
16	82.	56.	141.	70.	72.	66.	53.	139.	65.	65.
17	106.	77.	340.	102.	103.	71.	56.	231.	72.	71.
18	219.	127.	336.	159.	169.	130.	108.	352.	136.	134.
19	11.	12.	18.	14.	13.	10.	11.	16.	12.	11.
YEAR= 2										
1	161.	115.	150.	126.	134.	131.	116.	155.	123.	123.
2	22.	15.	27.	20.	20.	12.	9.	27.	16.	15.
3	6.	4.	7.	5.	5.	4.	3.	8.	5.	5.
4	3.	1.	3.	2.	2.	2.	1.	4.	2.	2.
5	3.	2.	5.	3.	3.	2.	2.	6.	3.	3.
6	2.	3.	7.	4.	5.	2.	3.	5.	3.	4.
7	3.	4.	8.	6.	5.	2.	4.	6.	4.	5.
8	4.	5.	9.	6.	5.	3.	4.	8.	5.	5.
9	5.	6.	11.	8.	7.	4.	4.	9.	6.	6.
10	7.	8.	15.	11.	10.	6.	6.	15.	9.	8.
11	11.	10.	24.	19.	14.	5.	6.	17.	8.	7.
12	19.	16.	15.	19.	19.	16.	18.	14.	17.	17.
13	25.	28.	31.	27.	26.	21.	21.	26.	22.	22.
14	39.	34.	38.	35.	36.	35.	33.	36.	34.	34.
15	46.	38.	72.	44.	44.	48.	42.	96.	49.	49.
16	93.	61.	116.	70.	75.	80.	70.	136.	79.	79.
17	123.	75.	356.	95.	101.	72.	68.	228.	82.	79.
18	279.	126.	312.	150.	172.	143.	139.	413.	166.	159.
19	13.	12.	16.	13.	13.	10.	10.	16.	12.	11.
YEAR= 3										
1	161.	127.	172.	141.	144.	126.	125.	158.	133.	129.
2	18.	14.	29.	19.	19.	13.	13.	28.	18.	16.
3	5.	4.	7.	5.	5.	4.	3.	7.	5.	5.
4	2.	1.	3.	2.	2.	2.	2.	4.	2.	2.
5	2.	2.	6.	3.	3.	2.	2.	5.	3.	3.
6	2.	3.	7.	4.	3.	2.	2.	6.	4.	3.
7	3.	4.	8.	6.	5.	3.	4.	7.	5.	4.
8	4.	5.	9.	6.	5.	4.	5.	9.	6.	6.
9	5.	6.	11.	8.	7.	5.	5.	10.	7.	6.
10	7.	9.	15.	11.	10.	6.	7.	16.	10.	9.
11	10.	11.	24.	15.	14.	6.	6.	19.	10.	8.
12	18.	22.	18.	20.	20.	15.	16.	15.	16.	16.
13	23.	26.	36.	28.	27.	20.	19.	26.	20.	20.
14	36.	35.	43.	37.	37.	32.	29.	39.	31.	31.
15	45.	39.	81.	46.	45.	46.	39.	90.	46.	46.
16	87.	58.	128.	70.	73.	73.	61.	138.	72.	72.
17	114.	76.	345.	99.	102.	72.	62.	230.	77.	75.
18	246.	127.	324.	155.	170.	137.	123.	381.	151.	146.
19	12.	12.	17.	14.	13.	10.	10.	16.	12.	11.

A P P E N D I X I I I

U N A D J U S T E D L I F E T A B L E S

Note : See Appendix II

LIFE TABLE FOR YEAR= 1 AREA= 1

AGE (X)	T(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	113.51	11351.	92054.	.872923*	5395384.	53.954
1	88648.6	57.46	5094.	344407.	.946123**	5703330.	59.824
5	83555.0	16.85	1408.	414256.	.987173	4958923.	59.349
10	82147.2	8.74	718.	408942.	.987389	4544668.	55.323
15	81429.5	16.52	1345.	403785.	.987823	4135726.	50.789
20	80084.3	6.76	622.	398868.	.990268	3731941.	46.600
25	79462.8	11.72	931.	394986.	.987205	3333074.	41.945
30	78531.6	13.88	1090.	389932.	.982050	2938088.	37.413
35	77441.6	22.07	1709.	382932.	.971577	2548156.	32.904
40	75731.8	34.92	2644.	372048.	.961384	2165224.	28.591
45	73087.6	48.52	3103.	352681.	.942139	1793175.	24.535
50	69924.7	73.95	5176.	336985.	.905222	1435494.	20.511
55	64809.3	117.26	7600.	305047.	.847265	1098509.	16.950
60	57209.4	192.92	11037.	258455.	.804045	797462.	13.869
65	46172.7	199.72	9221.	207810.	.745610	535007.	11.587
70	36951.2	322.71	11924.	154945.	.667422	327197.	8.855
75	25026.8	347.15	8688.	103414.	.399638***	172252.	6.883
80	16338.7	1000.00	16339.	68838.	.000000	68838.	4.213
FEMALES							
0	100000.0	98.99	9899.	93070.	.889862*	5754866.	57.549
1	90100.6	47.40	4271.	351861.	.954483**	5661795.	62.839
5	85829.8	20.83	1788.	424679.	.986747	5309935.	61.866
10	84042.0	5.52	464.	419051.	.994019	4885255.	58.129
15	83578.2	6.45	539.	416545.	.989318	4466204.	53.437
20	83039.4	14.94	1241.	412095.	.987329	4049660.	48.768
25	81798.7	10.37	848.	406874.	.986126	3637564.	44.470
30	80950.7	21.30	1724.	400443.	.980001	3230691.	39.909
35	79226.6	18.67	1479.	392435.	.979856	2830247.	35.723
40	77747.3	21.64	1683.	384530.	.975375	2433813.	31.566
45	76064.5	27.67	2105.	375061.	.960038	2053283.	26.994
50	73959.7	52.60	3890.	360072.	.925651	1678223.	22.691
55	70069.3	97.30	6818.	333301.	.803258	1318150.	18.812
60	63251.3	96.12	6080.	301057.	.829541	984849.	15.570
65	57171.5	252.70	14447.	249739.	.767866	683792.	11.960
70	42724.2	204.61	8742.	191766.	.741988	434053.	10.159
75	33982.5	325.15	11049.	142288.	.412728***	242287.	7.130
80	22933.0	1000.00	22933.	99998.	.000000	99998.	4.360

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 2

AGE (X)	T(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	128.45	12845.	91008.	.861819*	5253815.	52.538
1	87154.8	50.01	4359.	339901.	.950802**	5162807.	59.237
5	82795.9	20.63	1708.	409710.	.986097	4829506.	58.251
10	81088.0	7.04	570.	404014.	.992932	4413196.	54.425
15	80517.5	7.10	572.	401158.	.987290	4009482.	49.793
20	79945.7	18.36	1468.	396059.	.981227	3608023.	45.131
25	78478.0	19.19	1506.	388624.	.974205	3211965.	40.928
30	76971.6	32.52	2503.	378600.	.965400	2823341.	36.680
35	74468.2	36.75	2736.	365500.	.960205	2444742.	32.829
40	71731.8	42.96	3082.	350955.	.956186	2079242.	28.986
45	68650.2	44.71	3069.	335578.	.932288	1728887.	25.175
50	65581.1	91.80	6020.	312856.	.897549	1392709.	21.236
55	59561.1	114.18	6801.	280803.	.865036	1079853.	18.130
60	52760.2	158.42	8358.	242905.	.830795	799050.	15.145
65	44401.7	182.02	8082.	201804.	.798638	556145.	12.525
70	36319.9	225.01	8172.	161168.	.718436	354341.	9.756
75	28147.5	354.54	9979.	115789.	.400594***	193173.	6.863
80	18168.2	1000.00	18168.	77384.	.000000	77384.	4.259
FEMALES							
0	100000.0	130.09	13009.	90894.	.856087*	5407568.	54.076
1	86991.4	62.17	5408.	337149.	.943663**	5316674.	61.117
5	81583.2	19.55	1595.	403929.	.985675	4979524.	61.036
10	79988.2	9.00	720.	398142.	.990720	4575596.	57.203
15	79268.7	9.57	758.	394447.	.987325	4177454.	52.700
20	78510.3	15.81	1242.	389448.	.986377	3783007.	48.185
25	77268.8	11.40	881.	384142.	.979796	3393552.	43.919
30	76388.1	29.11	2224.	376381.	.968130	3009417.	39.396
35	74164.3	34.71	2574.	364386.	.962121	2633036.	35.503
40	71590.0	41.16	2947.	350583.	.965013	2268650.	31.689
45	68643.9	58.35	3960.	338349.	.959233	1918067.	27.943
50	66683.7	90.66	3557.	324525.	.928508	1579749.	23.690
55	63126.3	112.80	5723.	301324.	.899034	1255224.	19.884
60	57403.4	136.86	6446.	270901.	.876150	953900.	16.617
65	50956.9	257.73	6974.	237350.	.809125	682998.	13.203
70	43983.0	234.21	11336.	191576.	.752291	445650.	10.132
75	32647.2	354.21	7646.	144121.	.432761***	256074.	7.388
80	25001.0	1000.00	25001.	109953.	.000000	109953.	7.388

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 3

AGE (x)	1(x)	1000 q (x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	148.59	14859.	89598.	.824046*	4186491.	41.865
1	85140.6	106.52	9069.	322424.	.907500**	4096892.	48.119
5	76071.6	33.90	2579.	373911.	.975122	3774468.	49.617
10	73492.7	15.54	1142.	364609.	.980389	3400557.	46.271
15	72350.7	23.75	1718.	357458.	.971139	3035949.	41.962
20	70632.6	34.10	2409.	347142.	.960858	2678490.	37.921
25	68224.1	44.36	3027.	33554.	.958144	2331348.	34.172
30	65197.5	39.23	2558.	319593.	.953597	1997795.	30.642
35	62639.5	53.88	3374.	304763.	.946122	1678202.	26.791
40	59265.5	53.89	3194.	288343.	.921324	1373439.	23.174
45	56071.6	104.87	5880.	265657.	.882105	1085097.	19.352
50	50191.3	132.44	6648.	24338.	.836385	819440.	16.326
55	43543.7	199.55	8689.	195996.	.795960	585102.	13.437
60	34854.8	209.65	7307.	156005.	.768419	389106.	11.164
65	27547.3	259.32	7144.	119877.	.637914	233103.	8.462
70	20403.7	500.83	10219.	76471.	.396708	113223.	5.549
75	10184.9	808.56	8235.	30337.	.174546***	36752.	3.608
80	1949.8	1000.00	1950.	6415.	.000000	6415.	3.290
FEMALES							
0	100000.0	123.37	12337.	91364.	.850262*	4444823.	44.448
1	87662.9	96.30	8442.	333767.	.915333**	4353459.	49.661
5	79220.6	35.17	2786.	389137.	.973241	4019692.	50.741
10	76434.1	18.04	1379.	378724.	.984185	3630555.	47.499
15	75055.4	13.55	1017.	372734.	.977854	3251831.	43.326
20	74038.2	30.86	2285.	364479.	.965007	2879097.	38.887
25	71753.5	43.32	3109.	350996.	.955151	2514618.	35.045
30	68645.0	46.44	3188.	335254.	.947419	2163622.	31.519
35	65456.8	59.02	3863.	317626.	.931291	1828367.	27.932
40	61593.8	79.01	4866.	295803.	.928450	1510741.	24.527
45	56727.3	63.45	3599.	274638.	.928934	1214938.	21.417
50	53127.9	79.20	4207.	255121.	.887591	940300.	17.699
55	48920.4	148.78	7264.	226443.	.797939	685179.	14.006
60	41656.8	264.99	11038.	180688.	.723377	458736.	11.012
65	30618.3	292.46	8954.	130705.	.615521	278049.	9.081
70	21663.8	514.54	11147.	80452.	.526788	147343.	6.801
75	10516.9	388.08	4081.	42381.	.366419***	66891.	6.360
80	6435.5	1000.00	6436.	24510.	.000000	24510.	3.809

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 4

AGE (x)	1(x)	1000 q (x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	136.91	13691.	90417.	.846473*	4844859.	48.449
1	86309.3	71.93	6209.	332820.	.933946**	4754442.	55.086
5	80100.7	26.08	2089.	395280.	.981760	4421622.	53.201
10	78011.4	10.19	795.	388070.	.988504	4026342.	51.612
15	77216.8	12.82	990.	383609.	.981941	3638271.	47.118
20	76226.8	23.37	1781.	376681.	.973725	3254662.	42.697
25	74445.7	29.25	2178.	366784.	.967818	2877981.	38.659
30	72268.0	35.20	2544.	354980.	.960793	2511197.	34.748
35	69724.1	43.36	3023.	341062.	.954702	2156217.	30.923
40	66700.9	47.32	3156.	325613.	.943925	1815154.	27.213
45	63544.4	65.26	4147.	307354.	.914947	1489541.	23.441
50	59397.3	106.23	6310.	281213.	.880091	1182187.	19.903
55	53087.8	135.22	7178.	247493.	.847506	900974.	16.971
60	45909.4	172.47	7918.	209752.	.816909	653481.	14.234
65	37991.3	195.92	7443.	171348.	.768039	443729.	11.680
70	30548.0	276.78	8453.	131602.	.665476	272381.	8.917
75	22092.9	414.37	9153.	87578.	.377904***	140779.	6.372
80	12938.3	1000.00	12938.	53201.	.000000	53201.	4.112
FEMALES							
0	100000.0	127.26	12726.	91092.	.853935*	5068126.	50.681
1	87273.7	75.73	6609.	335876.	.932347**	4977035.	57.028
5	80664.2	25.98	2096.	398082.	.980835	4641159.	57.538
10	78568.6	12.17	956.	390453.	.988453	4243077.	54.005
15	77612.6	10.92	847.	385944.	.984003	3852624.	49.639
20	76765.2	21.13	1622.	379771.	.977173	3466680.	45.160
25	75143.1	24.56	1846.	371101.	.969800	3086909.	41.080
30	73297.5	35.98	2637.	359894.	.960129	2715808.	37.052
35	70660.1	43.90	3102.	345545.	.950941	2355914.	33.341
40	67557.8	54.45	3679.	328593.	.933418	2010369.	29.758
45	63879.3	38.26	2444.	313286.	.950735	1681776.	26.327
50	61435.5	60.71	3730.	297853.	.918411	1368489.	22.275
55	57705.7	103.82	5991.	273551.	.876451	1070637.	18.553
60	51714.6	145.56	7528.	239754.	.846600	797086.	15.413
65	44187.0	162.57	7184.	202976.	.775302	557332.	12.613
70	37003.4	298.88	11060.	157368.	.721327	354356.	9.576
75	25943.7	249.85	6482.	113514.	.423755***	196988.	7.593
80	19461.7	1000.00	19462.	83475.	.000000	83475.	4.289

*P(BIRTH), **p(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 5

AGE(x)	l(x)	1000 q(x)	d(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	129.23	12923.	90954.	.855043*	5014076.	50.141
1	87077.4	67.42	5871.	336568.	.938559**	4923122.	56.537
5	81206.4	23.53	1911.	401255.	.982268	4586554.	56.480
10	79295.4	9.77	775.	394541.	.988077	4185300.	52.781
15	78520.9	14.10	1107.	389836.	.984338	3790759.	48.277
20	77413.7	17.25	1335.	383731.	.979811	3400923.	43.932
25	76078.5	23.18	1764.	375983.	.974357	3017192.	39.659
30	74314.8	28.16	2093.	366342.	.967513	2641209.	35.541
35	72222.0	36.94	2668.	354441.	.959708	2274866.	31.498
40	69554.3	43.78	3045.	340160.	.948861	1920426.	27.610
45	66509.6	58.84	3913.	322764.	.922467	1580266.	23.760
50	62596.2	97.39	6097.	297740.	.882718	1257502.	20.089
55	56499.7	129.91	7340.	264148.	.847869	959762.	16.987
60	49159.6	177.67	8734.	223963.	.813674	695614.	14.150
65	40425.6	196.86	7958.	182233.	.763336	471651.	11.667
70	32467.5	286.23	9293.	139105.	.666405	289418.	8.914
75	23174.4	599.96	9269.	92700.	.383289***	150314.	6.486
80	13905.6	1000.00	13906.	57614.	.000000	57614.	4.143
FEMALES							
0	100000.0	117.67	11767.	91763.	.865747*	5269771.	52.698
1	88233.3	67.00	5911.	411110.	.939214**	5178008.	58.985
5	82321.8	24.53	2019.	406561.	.982580	4836898.	58.736
10	80302.5	10.13	814.	399479.	.990252	4430337.	55.171
15	79489.0	9.36	744.	395584.	.985811	4030859.	50.710
20	78744.8	19.06	1501.	389971.	.980331	3635274.	46.165
25	77243.7	20.29	1567.	382301.	.974139	3245303.	42.014
30	75676.7	31.55	2388.	372414.	.965648	2863002.	37.832
35	73289.0	37.24	2730.	359621.	.958745	2493588.	33.983
40	70559.5	45.42	3205.	344785.	.959620	2130966.	30.201
45	67354.6	58.10	3364.	330863.	.953454	1786181.	26.519
50	64990.4	75.41	3796.	315462.	.920425	1455319.	22.393
55	61194.4	102.05	6245.	290359.	.883624	1139957.	18.627
60	54949.3	132.33	7271.	256568.	.842036	849497.	15.460
65	47678.1	187.51	8940.	216040.	.773580	592929.	12.436
70	38737.9	274.31	10626.	167124.	.726859	376889.	9.729
75	28111.8	271.53	7633.	121476.	.420895***	209765.	7.462
80	20478.5	1000.00	20479.	88289.	.000000	88289.	4.311

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 1

AGE(x)	l(x)	1000 q(x)	d(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	106.99	10699.	92510.	.876427*	5240906.	52.409
1	89300.6	64.38	5750.	345703.	.939662**	5148396.	57.652
5	83551.1	28.64	2393.	411773.	.980561	4802693.	57.485
10	81158.0	9.96	809.	403768.	.987776	4390920.	54.103
15	80349.3	14.51	1166.	398833.	.988898	3987152.	49.623
20	79183.7	7.65	605.	394405.	.989606	3588316.	45.316
25	78578.3	13.16	1034.	390305.	.986139	3193914.	40.646
30	77543.9	10.37	1130.	384895.	.987546	2803609.	36.155
35	76414.2	14.57	1087.	380102.	.971901	2418714.	31.653
40	75626.5	46.08	3485.	369421.	.944555	2038612.	26.956
45	72142.0	63.27	4709.	348939.	.921042	1669190.	23.138
50	67433.5	93.61	6312.	321387.	.893466	1320251.	19.579
55	61121.4	120.80	7383.	287148.	.844412	998864.	16.342
60	53738.0	195.16	10487.	242472.	.771169	711716.	13.244
65	43250.7	270.67	11707.	186987.	.737487	469244.	10.849
70	31544.0	251.33	7928.	137900.	.662107	282257.	8.948
75	23616.1	453.52	10710.	91305.	.367510***	144357.	6.113
80	12905.8	1000.00	12906.	53053.	.000000	53053.	4.111
FEMALES							
0	100000.0	93.07	9307.	93485.	.807221*	5761505.	57.615
1	90693.4	42.17	3824.	355125.	.959392**	5686020.	62.497
5	86869.3	18.20	1581.	430394.	.986461	5312894.	61.160
10	85288.2	8.79	750.	424567.	.991315	4882501.	57.247
15	84538.5	8.58	725.	420879.	.992363	4457934.	52.733
20	83813.2	6.69	560.	417665.	.989763	4037055.	48.167
25	83252.8	13.81	1150.	413389.	.988111	3619390.	43.475
30	82103.0	9.94	816.	408475.	.989842	3206001.	39.049
35	81286.8	10.38	843.	404325.	.981176	2797526.	34.415
40	80443.4	27.36	2201.	396714.	.964582	2393201.	29.750
45	78242.3	43.70	3419.	382664.	.935746	1996486.	25.517
50	74823.1	85.75	6416.	358076.	.918760	1613823.	21.569
55	68407.2	76.31	5220.	328986.	.889024	1255747.	18.357
60	63187.0	146.51	9384.	292476.	.841145	926761.	14.666
65	53803.4	171.01	9201.	246015.	.778315	634285.	11.789
70	44602.5	282.81	12614.	191477.	.643992	388271.	8.705
75	31998.3	458.07	14653.	123310.	.373407***	196794.	6.152
80	17335.5	1000.00	17336.	73484.	.000000	73484.	4.239

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 2

AGE (x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	100.76	10076.	92947.	.885243*	5461875.	54.619
1	89924.5	55.73	5012.	349674.	.950806**	5368928.	59.705
5	84912.7	17.51	1487.	420847.	.987699	5019253.	59.111
10	83426.2	7.00	584.	415671.	.990296	4598406.	55.119
15	82842.0	12.43	1029.	411637.	.987686	4182735.	50.490
20	81812.7	12.20	998.	406568.	.986438	3771099.	46.094
25	80814.4	14.94	1207.	401054.	.979892	3364531.	41.633
30	79807.1	25.35	2018.	392989.	.977267	2963477.	37.226
35	77588.7	20.04	1555.	384056.	.966624	2570488.	33.130
40	76033.6	46.98	3572.	371238.	.945492	2186432.	28.756
45	72461.5	62.41	4522.	351002.	.926642	1815194.	25.050
50	67939.5	85.04	5778.	325253.	.908051	1464192.	21.551
55	62161.9	99.50	6185.	295347.	.881218	1138939.	18.322
60	55976.9	140.20	7848.	260265.	.850892	843592.	15.070
65	48129.2	159.47	7675.	221458.	.773116	563327.	12.120
70	40453.9	307.08	12423.	171212.	.670071	361869.	8.945
75	28031.1	362.90	10172.	114724.	.398267***	190657.	6.802
80	17858.7	1000.00	17859.	75932.	.000000	75932.	4.252

FEMALES							
0	100000.0	98.66	9866.	93094.	.894759*	5735145.	57.351
1	90134.5	34.68	3126.	354285.	.966880**	5642051.	62.596
5	87008.3	11.40	992.	432562.	.989793	5287765.	60.773
10	86016.7	9.00	775.	428147.	.989484	4855203.	56.443
15	85242.1	12.04	1026.	423645.	.989197	4427056.	51.935
20	84215.8	9.55	804.	419068.	.986820	4003411.	47.538
25	83411.6	16.32	1405.	413565.	.979045	3584343.	42.972
30	82006.4	25.13	2061.	404879.	.978727	3170798.	38.665
35	79945.3	17.31	1384.	396266.	.979383	2765918.	34.598
40	78561.2	23.98	1884.	388096.	.975365	2369652.	30.163
45	76677.3	25.31	1940.	378536.	.952266	1981556.	25.843
50	74737.0	70.75	5287.	360467.	.920861	1603020.	21.449
55	69449.7	88.17	6124.	331939.	.887569	1242553.	17.891
60	63326.1	139.04	8805.	294619.	.813740	910614.	14.380
65	54521.5	241.11	13146.	239743.	.723994	615995.	11.298
70	41375.8	321.99	13323.	173573.	.685197	376252.	7.225
75	28053.3	304.20	8534.	118932.	.413201***	202679.	4.290
80	19519.4	1000.00	19519.	83747.	.000000	83747.	

*P(BIRTH), **p(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 3

AGE (x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	108.72	10872.	92390.	.863521*	4530930.	45.309
1	89128.2	96.16	8571.	339371.	.919170**	4438541.	49.800
5	80557.3	29.42	2370.	368661.	.977133	4099170.	50.885
10	78187.3	16.12	1260.	387786.	.980531	3702309.	47.352
15	76927.2	22.88	1760.	380236.	.970374	3314522.	43.086
20	75167.3	36.33	2746.	368972.	.961223	2934286.	39.037
25	72421.3	41.11	2977.	354664.	.962717	2565314.	35.422
30	69444.4	33.30	2312.	341441.	.952870	2210650.	31.833
35	67132.1	61.44	4125.	325349.	.940020	1869209.	27.844
40	63007.6	58.42	3681.	305835.	.923000	1543859.	24.503
45	59526.4	96.73	4887.	282286.	.905898	1238025.	20.868
50	55587.8	91.19	4887.	255722.	.873843	955739.	17.835
55	48700.9	164.63	8017.	223461.	.844963	700017.	14.374
60	40683.4	143.56	5840.	188816.	.786382	476556.	11.714
65	34843.1	295.42	10293.	148482.	.606271	287740.	8.258
70	24549.6	538.09	13210.	89723.	.413623	139258.	5.673
75	11339.6	690.91	7835.	37112.	.250810***	49535.	3.368
80	3505.0	1000.00	3505.	12424.	.000000	12424.	3.545

FEMALES							
0	100000.0	108.04	10804.	92437.	.865680*	4679423.	46.794
1	89196.4	91.84	8192.	340402.	.922587**	4586983.	51.426
5	81004.9	28.11	2277.	399332.	.979088	4246583.	52.424
10	78728.1	13.51	1064.	390982.	.977547	3847251.	48.868
15	77664.6	31.52	2448.	382203.	.977255	3456269.	44.503
20	75216.6	13.68	1029.	373510.	.977992	3074066.	40.870
25	74187.3	30.45	2259.	365289.	.969793	2700556.	36.402
30	71928.5	29.96	2155.	354255.	.965943	2335267.	32.467
35	69773.6	38.28	2671.	342190.	.939608	1981011.	28.392
40	67102.5	83.38	3595.	321525.	.910732	1638821.	24.423
45	61507.4	95.69	5886.	292823.	.881561	1317296.	21.417
50	5621.7	143.59	7987.	258141.	.870458	1024474.	18.419
55	47634.7	113.13	5389.	224701.	.841454	766333.	16.088
60	42245.7	209.75	8861.	189076.	.793638	541632.	12.821
65	33384.6	202.07	6746.	150058.	.678028	352556.	10.560
70	26638.4	472.23	12580.	101743.	.593321	202498.	7.602
75	14058.8	282.47	3971.	60366.	.400862***	100755.	7.167
80	10087.7	1000.00	10088.	40389.	.000000	40389.	4.004

*P(BIRTH), **p(0-4), ***T(80)/T(75)

AGE (X)	T(X)	1000 Q (X)	D (X)	L (X)	P (X)	T (X)	E (X)
MALES							
0	100000.0	103.85	10385.	92730.	.876498*	5116063.	51.16
1	89614.9	72.20	6470.	345519.	.938013**	5023333.	56.05
5	83144.4	22.32	1856.	411083.	.983550	4677814.	56.26
10	81288.9	10.45	849.	404321.	.986738	4266731.	52.48
15	80439.5	16.10	1295.	398959.	.981987	3862410.	48.01
20	79144.1	19.95	1579.	382921.	.977406	3463451.	43.76
25	77564.9	25.29	1961.	372625.	.973112	3071678.	39.60
30	75603.5	28.53	2157.	360617.	.967774	2688757.	35.56
35	73446.5	36.03	2646.	344865.	.956321	2316132.	31.53
40	70800.2	51.61	3654.	323223.	.937244	1955516.	27.62
45	67145.9	74.50	5003.	297164.	.919378	1610650.	23.98
50	62143.3	87.23	6544.	267251.	.899338	1287427.	20.71
55	56722.3	115.37	7078.	233196.	.872572	990263.	17.45
60	50178.0	141.05	7930.	195677.	.839111	723012.	14.40
65	43100.2	183.98	8873.	145007.	.741056	489817.	11.36
70	35170.6	350.81	12338.	91730.	.632587	294140.	8.36
75	22832.4	392.99	8873.	57402.	.384910***	149132.	6.53
80	13659.5	1000.00	13859.		.000000	57402.	4.12

FEMALES

0	100000.0	102.20	10220.	92846.	.882954*	5326613.	53.26
1	89779.9	58.41	5244.	348631.	.948673**	5233767.	58.29
5	84535.5	18.27	1544.	418817.	.985525	4885136.	57.88
10	82991.3	10.61	881.	412754.	.985369	4466319.	53.81
15	82110.2	18.69	1535.	406715.	.985116	4053365.	49.36
20	80575.7	11.00	887.	400662.	.983351	3646849.	45.26
25	79689.1	22.36	1782.	393991.	.975320	3246187.	40.73
30	77907.5	27.06	2108.	384268.	.973816	2852196.	36.61
35	75799.7	25.29	1917.	374206.	.964881	2467928.	32.55
40	73882.8	45.21	3340.	361064.	.954572	2093722.	28.33
45	70542.9	45.66	3221.	344662.	.945722	1732657.	24.56
50	67321.9	93.06	6265.	320946.	.931191	1387996.	20.61
55	61056.6	93.61	5715.	290994.	.906677	1067049.	17.47
60	55341.2	156.31	8651.	255080.	.876579	776055.	14.02
65	46690.6	236.22	11029.	205880.	.807120	520976.	11.58
70	35661.3	345.68	12327.	147488.	.716381	315096.	8.83
75	23334.0	302.87	7053.	99037.	.671493	167607.	7.18
80	16281.0	1000.00	16281.	68570.	.409111***	68570.	4.21

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 5

AGE (X)	T(X)	1000 Q (X)	D (X)	L (X)	P (X)	T (X)	E (X)
MALES							
0	100000.0	104.88	10488.	92658.	.876422*	5161514.	51.61
1	89511.6	69.79	6247.	345553.	.938612**	5068856.	56.62
5	83264.9	24.09	2006.	411310.	.982715	4723302.	56.72
10	81259.1	10.31	838.	404201.	.987077	4311992.	53.06
15	80421.1	15.56	1251.	398977.	.984671	3907792.	48.59
20	79169.7	15.09	1192.	392861.	.981980	3508815.	44.32
25	77974.7	20.99	1637.	385782.	.977445	3115954.	39.96
30	76337.9	24.15	1844.	377080.	.973779	2730172.	35.76
35	74494.2	28.34	2111.	367193.	.960997	2353092.	31.58
40	72382.9	49.98	3617.	352871.	.939330	1985899.	27.43
45	68765.5	71.93	4946.	331462.	.919855	1633028.	23.74
50	63819.5	89.00	5680.	304897.	.897668	1301565.	20.39
55	58139.5	116.97	6800.	273697.	.865203	996668.	17.14
60	51339.1	154.99	7957.	236803.	.820891	722972.	14.08
65	43382.1	207.65	9008.	164389.	.738415	486168.	11.20
70	34373.7	329.65	11331.	91753.	.639218	291779.	8.48
75	23042.4	407.23	9383.	56485.	.381044***	148239.	6.43
80	13659.0	1000.00	13659.		.000000	56485.	4.13

FEMALES

0	100000.0	99.16	9916.	93059.	.887564*	5452800.	54.52
1	90084.1	53.35	4806.	350723.	.952038**	5359741.	59.49
5	85277.6	18.25	1556.	422498.	.985810	5009018.	58.73
10	83721.4	10.06	842.	416502.	.987386	4586520.	54.78
15	82879.5	15.20	1259.	411249.	.987611	4170018.	50.31
20	81620.0	9.54	778.	406154.	.985396	3758769.	46.05
25	80841.5	19.72	1594.	400223.	.979071	3352615.	41.47
30	79247.5	22.16	1756.	391846.	.978280	2952393.	37.25
35	77491.1	21.27	1648.	383335.	.969302	2560546.	33.04
40	75843.1	40.33	3059.	371568.	.957337	2177211.	28.70
45	72784.0	45.09	3282.	355716.	.932488	1805643.	24.80
50	69502.2	90.99	6324.	331700.	.910061	1449928.	20.86
55	63177.9	88.78	8879.	301868.	.880013	1118228.	17.70
60	57569.1	154.24	10644.	265647.	.816266	816266.	14.18
65	48689.8	218.61	12522.	216839.	.732912	550713.	11.31
70	38045.8	329.13	8985.	158924.	.661731	333874.	8.77
75	25523.8	351.89	16542.	105165.	.398885***	174950.	6.85
80	16542.2	1000.00	16542.	69785.	.000000	69785.	4.21

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE (x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	109.83	10983.	92312.	.875080*	5318285.	53.18
1	89017.3	60.89	5421.	345228.	.944221**	5225973.	58.70
5	83596.7	22.78	1905.	413222.	.983858	4880745.	58.38
10	81692.0	9.35	764.	406551.	.987581	4467523.	54.68
15	80928.5	15.22	1256.	401503.	.988338	4060972.	50.18
20	79672.5	7.70	614.	396828.	.989934	3659469.	45.93
25	79058.6	12.45	984.	392834.	.986673	3262641.	41.26
30	78074.7	14.22	1110.	387598.	.984763	2869807.	36.75
35	76964.6	16.27	1252.	381692.	.971650	2482209.	32.25
40	75712.4	40.63	3076.	370872.	.952891	2100516.	27.74
45	72636.2	53.86	3912.	353400.	.931506	1729645.	23.81
50	68723.9	83.96	5770.	329195.	.899286	1376625.	20.02
55	62954.0	119.01	7492.	296040.	.845855	1047050.	16.63
60	55462.1	194.03	10761.	250407.	.786796	751010.	13.54
65	44700.7	236.99	10594.	197019.	.741066	500603.	11.19
70	34107.0	287.69	9812.	146004.	.664884	303584.	8.90
75	24294.7	401.70	9759.	97076.	.383956***	157579.	6.48
80	14535.6	1000.00	14536.	60504.	.000000	60504.	4.16

FEMALES							
0	100000.0	95.70	9570.	93301.	.893845*	5759821.	57.59
1	90430.3	44.79	4050.	353621.	.956956**	5666520.	62.66
5	86380.3	19.52	1686.	427685.	.986600	5312898.	61.50
10	84693.8	7.16	606.	421954.	.992665	4885213.	57.68
15	84087.8	7.52	632.	418859.	.990857	4463259.	53.01
20	83455.8	10.78	900.	415030.	.988568	4044400.	48.46
25	82556.0	12.09	998.	410285.	.986119	3629371.	43.96
30	81558.0	15.69	1280.	404590.	.984885	3219086.	39.47
35	80277.9	14.52	1166.	398475.	.980531	2814496.	35.05
40	79111.9	24.49	1937.	390717.	.969927	2416021.	30.53
45	77174.7	35.80	2763.	378966.	.947726	2025305.	26.24
50	74411.8	69.36	5161.	359156.	.922281	1646338.	22.12
55	69250.7	86.70	6004.	331243.	.896484	1287182.	18.58
60	63246.5	121.93	7711.	296954.	.836100	955939.	15.11
65	55535.1	211.70	11757.	248283.	.774345	658985.	11.86
70	43778.2	243.36	10654.	192257.	.690106	410702.	9.38
75	33124.5	397.83	13178.	132677.	.392627***	218445.	6.59
80	19946.5	1000.00	19947.	85767.	.000000	85767.	4.30

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 2

AGE (x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	112.45	11245.	92129.	.875546*	5371727.	53.71
1	88755.2	52.82	4688.	345644.	.951015**	5279598.	59.48
5	84067.0	19.06	1603.	416329.	.986901	4933953.	58.69
10	82464.4	7.02	579.	410875.	.991614	4517625.	54.78
15	81885.6	9.76	800.	407429.	.987494	4106750.	50.15
20	81086.1	15.28	1239.	402334.	.983829	3699321.	45.62
25	79847.5	17.08	1364.	395828.	.977064	3296987.	41.29
30	78483.7	28.89	2268.	386749.	.971326	2901159.	36.96
35	76216.1	28.45	2168.	375660.	.963415	2514409.	32.99
40	74047.9	53.34	3329.	361916.	.950848	2138749.	28.88
45	70718.6	53.34	3786.	344127.	.929513	1776833.	25.12
50	66932.3	88.39	5916.	319871.	.902781	1432706.	21.40
55	61016.0	106.90	6523.	288773.	.873082	1112835.	18.23
60	54493.3	149.33	8137.	252123.	.840729	824062.	15.12
65	46355.8	170.96	7925.	211967.	.786705	571939.	12.33
70	38431.0	264.36	10160.	166755.	.695666	359972.	9.36
75	28271.2	358.67	10140.	116006.	.399606***	193217.	6.83
80	18131.2	1000.00	18131.	77211.	.000000	77210.	4.25

FEMALES

0	100000.0	111.84	11184.	92171.	.877553*	5581346.	55.81
1	88816.4	48.75	4330.	346605.	.955295**	5489175.	61.80
5	84486.2	15.48	1308.	419161.	.987734	5142570.	60.86
10	83172.2	9.00	749.	414020.	.990099	4723409.	56.78
15	82429.6	10.81	891.	409920.	.988254	4309389.	52.28
20	81536.5	12.69	1035.	405105.	.986614	3899469.	47.82
25	80503.7	14.09	1134.	399682.	.979463	3494363.	43.40
30	79369.3	27.08	2149.	391474.	.973379	3094681.	38.99
35	77220.3	26.15	2020.	381053.	.970660	2703207.	35.00
40	75200.7	32.61	2453.	369872.	.970202	2322154.	30.87
45	72768.2	26.89	1956.	358851.	.955785	1952282.	26.83
50	70792.1	62.02	4391.	342984.	.924718	1593431.	22.50
55	66401.6	89.42	5938.	317164.	.893480	1250446.	18.83
60	60464.0	125.30	7576.	283380.	.843922	933283.	15.43
65	52887.9	191.27	10116.	239150.	.764854	649903.	12.28
70	42772.2	289.40	12378.	182915.	.718573	410753.	9.60
75	30393.8	270.20	8212.	131438.	.423107***	227838.	7.49
80	22181.3	1000.00	22181.	96400.	.000000	96400.	4.36

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 3

AGE (X)	1(X)	1000 q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	126.81	12681.	91123.	845440*	4364558.	43.646
1	87318.6	101.22	8839.	331597.	9713564**	4273435.	48.941
5	78479.8	31.69	2487.	386182.	976112	3941838.	50.227
10	75992.9	15.83	1203.	376957.	980461	3555657.	48.789
15	74789.7	23.30	1743.	369591.	970760	3178700.	42.502
20	73046.8	35.32	2580.	358784.	961028	2809109.	38.456
25	70466.9	42.76	3013.	344802.	960440	2450325.	34.773
30	67453.9	36.22	2443.	331161.	953275	2105523.	31.214
35	65010.7	57.63	3746.	315688.	943078	1774361.	27.293
40	61264.4	56.17	3441.	297718.	922201	1458673.	23.809
45	57822.9	100.71	5823.	274556.	894136	1160955.	20.078
50	51999.6	111.59	5803.	245491.	855116	886399.	17.046
55	46196.7	182.36	8474.	209923.	777170	640908.	13.873
60	37772.5	178.27	6734.	172028.	621511	430985.	11.410
65	31038.8	277.06	8600.	133695.	402129	258957.	8.343
70	22439.3	518.79	11641.	83093.	207610***	125262.	5.582
75	10797.9	762.21	8230.	33414.	000000	42169.	3.905
80	2567.7	1000.00	2568.	8755.		8755.	3.410
FEMALES							
0	100000.0	115.13	11513.	91941.	858488*	4558898.	45.589
1	88486.6	94.04	8321.	337303.	919018**	4466957.	50.482
5	80165.2	31.65	2537.	394483.	976176	4129654.	51.514
10	77628.0	15.74	1222.	385085.	980841	3735171.	48.116
15	76405.9	22.63	1729.	377707.	977518	3350086.	43.848
20	74676.8	22.33	1667.	369215.	970391	2972379.	39.803
25	73009.3	37.06	2705.	358283.	962495	2603164.	35.655
30	70303.9	37.97	2670.	344846.	956732	2244881.	31.931
35	67634.3	48.77	3299.	329925.	935411	1900035.	28.093
40	64335.6	81.22	5225.	308615.	919187	1570111.	24.405
45	59110.6	80.38	4751.	283675.	904008	1261495.	21.341
50	54359.5	112.97	6141.	256445.	878376	977820.	17.988
55	48218.3	131.38	6335.	225255.	819956	721376.	14.961
60	41883.6	236.07	9888.	184699.	756778	496121.	11.845
65	31996.1	252.58	8082.	139776.	644203	311422.	9.733
70	23914.4	493.89	11811.	90044.	558631	171646.	7.177
75	12103.3	337.59	4086.	50302.	383571***	81601.	6.742
80	8017.3	1000.00	8017.	31300.	000000	31300.	3.904

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 4

AGE (X)	1(X)	1000 q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	118.23	11823.	91724.	863446*	4991889.	49.919
1	88177.1	72.07	6355.	339999.	936156**	4900165.	55.572
5	81822.3	24.21	1981.	404160.	982652	4560166.	55.733
10	79841.6	10.32	824.	397149.	987615	4156007.	52.053
15	79017.8	14.47	1144.	392230.	981961	3758858.	47.570
20	77874.2	21.66	1686.	385154.	975558	3366628.	43.232
25	76187.7	27.69	2079.	375741.	970478	2981474.	39.133
30	74108.6	31.82	2358.	364648.	964295	2605733.	35.161
35	71750.5	39.72	2850.	351628.	955505	2241086.	31.234
40	68900.7	49.47	3408.	335982.	940568	1889458.	27.423
45	65492.2	69.91	4579.	316014.	917205	1553475.	23.720
50	60913.4	96.64	5887.	289850.	889710	1237461.	20.315
55	55026.5	125.40	6900.	257882.	859860	947612.	17.221
60	48126.4	157.00	7556.	221743.	827877	689729.	14.332
65	40570.6	190.06	7711.	183576.	755231	467987.	11.535
70	32859.6	312.31	10262.	138642.	650310	284411.	8.655
75	22597.2	404.04	9130.	90160.	381485***	145769.	6.451
80	13466.9	1000.00	13467.	55609.	000000	55609.	4.129
FEMALES							
0	100000.0	113.14	11314.	92080.	869825*	5203728.	52.037
1	88685.7	67.15	5955.	342832.	940592**	5111648.	57.638
5	82730.5	22.13	1831.	409075.	983180	4768816.	57.643
10	80899.5	11.39	921.	402194.	986900	4359741.	53.891
15	79978.3	14.83	1186.	396926.	984543	3957547.	49.483
20	78791.9	16.09	1268.	390790.	982046	3560621.	45.190
25	77524.2	23.48	1820.	383071.	972605	3169831.	40.888
30	75704.1	31.41	2378.	372576.	966957	2786760.	36.811
35	73326.5	34.73	2547.	360265.	957853	2414184.	32.924
40	70779.3	49.83	3527.	345081.	935950	2053918.	29.018
45	67224.8	72.07	2830.	329190.	940796	1708837.	25.409
50	62422.2	77.09	4965.	309701.	912509	1379647.	21.453
55	59457.1	98.77	5875.	282605.	876530	1069946.	17.995
60	53584.8	150.88	8085.	247711.	826495	767332.	14.693
65	45499.8	200.15	9107.	204732.	745741	539230.	11.860
70	36393.1	321.91	11715.	152677.	696389	334898.	9.202
75	24677.8	276.62	6826.	106323.	416517***	182221.	7.384
80	17851.3	1000.00	17851.	75898.	000000	75898.	4.252

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 5

AGE(x)	l(x)	1000 q(x)	d(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	115.47	11547.	91917.	.867186*	5096977.	50.970
1	88452.9	68.60	6068.	341676.	.938717**	5005060.	56.584
5	82385.1	23.81	1962.	407021.	.982991	4663384.	56.605
10	80423.4	10.04	808.	400098.	.987575	4256362.	52.924
15	79615.9	14.83	1181.	395127.	.984506	3856264.	48.436
20	78435.0	16.17	1268.	389005.	.980896	3461137.	44.127
25	77167.0	22.09	1705.	381573.	.975901	3072133.	39.811
30	75462.3	26.15	1974.	372378.	.970628	2690559.	35.654
35	73488.8	32.68	2401.	361440.	.960331	2318181.	31.545
40	71087.4	46.90	3334.	347102.	.944066	1956741.	27.526
45	67753.6	65.41	4432.	327688.	.921187	1609639.	23.757
50	63321.5	93.15	5888.	301867.	.892410	1281951.	20.245
55	57423.1	123.51	7093.	269384.	.856421	980090.	17.068
60	50330.6	166.47	8379.	230706.	.817263	710706.	14.121
65	41952.0	202.25	8485.	188548.	.771193	479999.	11.442
70	33467.1	307.16	10280.	141636.	.653401	291452.	8.709
75	23187.2	403.52	9356.	92545.	.382276***	149816.	6.461
80	13830.8	1000.00	13831.	57271.	.000000	57271.	4.141
FEMALES							
0	100000.0	107.29	10729.	92490.	.877647*	5365872.	53.659
1	89271.3	60.22	5376.	346333.	.945684**	5273382.	59.071
5	83895.3	21.40	1795.	414988.	.984192	4927049.	58.729
10	82100.0	10.09	829.	408428.	.988812	4512061.	54.958
15	81271.3	12.29	999.	403859.	.986708	4103632.	50.493
20	80272.2	14.30	1148.	398491.	.982867	3699773.	46.090
25	79124.1	20.01	1583.	391663.	.976635	3301283.	41.723
30	77541.2	26.79	2078.	382512.	.971950	2909619.	37.524
35	75463.7	29.34	2244.	371783.	.963989	2527107.	33.488
40	73249.5	42.88	3141.	358395.	.958418	2155325.	29.424
45	70108.4	40.22	2820.	343492.	.942795	1796930.	25.631
50	67288.7	74.90	5040.	323843.	.915228	1453438.	21.600
55	62248.7	95.45	5941.	296390.	.881895	1129595.	18.147
60	56307.3	143.16	8061.	261385.	.832088	833206.	14.797
65	48246.6	203.31	9809.	216711.	.753226	571821.	11.852
70	38437.8	301.33	11583.	163232.	.693679	355110.	9.239
75	26855.2	313.46	8418.	113231.	.409881***	191878.	7.145
80	18437.1	1000.00	18437.	78647.	.000000	78647.	4.266

*P(BIRTH), **P(0-4), ***T(80)/T(75)

A P P E N D I X I V

A D J U S T E D L I F E T A B L E S B Y " A G E "

Note : See Appendix II

LIFE TABLE FOR YEAR= 1 AREA= 1

AGE (X)	1(X)	1000 q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	145.36	14536.	89825.	.842960*	5175992.	51.760
1	85464.3	59.69	5101.	331655.	.942535**	5086167.	50.512
5	80363.1	22.68	1822.	397259.	.983970	4754512.	59.163
10	78540.7	9.23	725.	390892.	.989705	4357252.	55.478
15	77815.9	11.37	885.	386867.	.989971	3966361.	50.971
20	76930.9	8.67	667.	382987.	.989015	3579494.	46.529
25	76263.9	13.32	1016.	378780.	.985050	3196507.	41.914
30	75248.1	16.60	1249.	373117.	.980478	2817727.	37.446
35	73998.8	22.49	1664.	365833.	.971515	2444609.	33.036
40	72334.5	34.62	2504.	355412.	.958433	2078776.	28.738
45	69830.4	48.77	3405.	340639.	.935290	1723364.	24.679
50	66425.0	81.47	5402.	318596.	.910077	1382725.	20.816
55	61013.4	99.13	6048.	289947.	.873556	1064129.	17.441
60	54965.4	156.77	8617.	253285.	.825601	774183.	14.085
65	46348.5	195.31	9052.	209152.	.740548	520898.	11.239
70	37296.4	339.17	12650.	154858.	.629069	311786.	8.360
75	24646.7	419.00	10327.	97416.	.379230***	156928.	6.367
80	14319.7	1000.00	14320.	59512.	.000000	59512.	4.156
FEMALES							
0	100000.0	108.31	10831.	92419.	.878819*	5537805.	55.378
1	89169.4	54.32	4843.	346997.	.949143**	5445386.	61.068
5	84326.0	21.67	1827.	417062.	.984375	5098396.	60.461
10	82499.0	9.45	780.	410546.	.990211	4681333.	56.744
15	81719.4	10.13	828.	406527.	.990197	4270787.	52.262
20	80891.4	9.47	766.	402542.	.988045	3864260.	47.771
25	80125.3	14.46	1159.	397729.	.982844	3461719.	43.204
30	78966.4	19.89	1571.	390906.	.977974	3063989.	38.801
35	77395.9	24.21	1873.	382296.	.970896	2673084.	34.538
40	75522.4	34.12	2577.	371169.	.967657	2290788.	30.333
45	72945.3	30.50	2225.	359164.	.950541	1919619.	26.316
50	70720.2	69.02	4881.	341400.	.920163	1560455.	22.065
55	65839.7	91.46	6022.	314144.	.887901	1219054.	18.515
60	59818.0	134.81	8064.	278929.	.834863	904910.	15.128
65	51753.7	200.19	10360.	232868.	.762716	625981.	12.095
70	41393.3	283.67	11742.	177612.	.709277	393113.	9.497
75	29651.4	300.57	8912.	125976.	.415430***	215502.	7.268
80	20739.0	1000.00	20739.	89526.	.000000	89526.	4.517

*P(BIRTH), **p(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 2

AGE(x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	132.08	13208.	90754.	.858482*	5195900.	51.959
1	86792.0	50.01	4341.	338486.	.951868**	5105146.	58.820
5	82451.3	17.83	1470.	408581.	.987445	4766660.	57.812
10	80981.0	7.18	582.	403451.	.990905	4358079.	53.816
15	80399.4	11.02	886.	399782.	.986501	3954628.	49.187
20	79513.2	16.00	1272.	394385.	.980599	3554847.	44.708
25	78240.8	22.86	1788.	386734.	.975281	3160461.	40.394
30	76452.6	26.63	2036.	377174.	.971242	2773728.	36.280
35	74417.0	30.95	2303.	366327.	.962195	2396554.	32.204
40	72114.0	44.88	3237.	352479.	.949503	2030226.	28.153
45	68877.4	56.38	3883.	334679.	.918329	1677748.	24.358
50	64994.3	108.48	7050.	307346.	.883992	1343068.	20.864
55	57943.9	124.45	7211.	271691.	.856784	1035722.	17.875
60	50732.6	164.65	8353.	232781.	.829137	764031.	15.060
65	42379.7	178.31	7557.	193007.	.790711	531251.	12.536
70	34823.1	246.99	8601.	152613.	.720953	338244.	9.713
75	26222.0	321.61	8433.	110027.	.407283***	185631.	7.079
80	17788.7	1000.00	17789.	75604.	.000000	75604.	4.250
FEMALES							
0	100000.0	132.54	13254.	90723.	.853845*	5357563.	53.576
1	86746.4	62.17	5363.	336200.	.923711**	5266840.	60.715
5	81353.5	19.06	1550.	402891.	.986173	4930640.	60.608
10	79803.1	8.49	678.	397321.	.990342	4527749.	56.737
15	79125.2	10.83	857.	393483.	.987485	4130428.	52.201
20	78268.2	14.22	1113.	388559.	.982668	3756945.	47.745
25	77155.4	20.49	1581.	381825.	.975993	3348386.	43.398
30	75574.4	27.60	2086.	372658.	.972580	2966562.	39.254
35	73488.9	27.24	2002.	362440.	.966970	2593904.	35.297
40	71487.1	38.98	2787.	350468.	.963077	2231464.	31.215
45	68700.3	34.78	2389.	337528.	.947742	1880995.	27.380
50	66310.9	70.37	4666.	319890.	.924315	1543467.	23.276
55	61644.9	81.41	5018.	295679.	.900979	1223578.	19.849
60	56626.6	118.20	6693.	266400.	.861284	927899.	16.386
65	49933.5	161.99	8088.	229446.	.805651	661499.	13.248
70	41845.0	232.97	9749.	184853.	.762049	432053.	10.325
75	32096.4	244.45	7846.	140867.	.430147***	247199.	7.702
80	24250.6	1000.00	24251.	106332.	.000000	106332.	4.385

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 3

AGE(x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	176.66	17666.	87634.	.796543*	3976596.	39.766
1	82334.0	113.22	9349.	710638.	.900112**	3888962.	47.874
5	72984.9	35.27	2574.	58489.	.973764	368325.	49.028
10	70410.7	16.87	1188.	349084.	.977058	3219836.	45.729
15	69222.8	29.12	2016.	341075.	.967525	2870752.	41.471
20	67207.3	35.93	2415.	329999.	.963903	2529677.	37.640
25	64792.3	36.27	2350.	318087.	.960934	2199678.	33.950
30	62442.5	41.97	2621.	305660.	.953360	1881591.	30.133
35	59821.7	51.51	3082.	291405.	.939290	1575930.	26.344
40	56740.1	70.41	3995.	273713.	.908502	1284526.	22.639
45	52745.2	114.19	6023.	248669.	.893124	1010812.	19.164
50	46722.4	98.62	4608.	222092.	.859159	762143.	16.312
55	42114.5	187.68	7904.	190812.	.801119	540051.	12.823
60	34210.5	212.67	7276.	152863.	.717982	349239.	10.209
65	26934.9	370.10	9968.	109753.	.571802	196375.	7.291
70	16966.4	520.44	8830.	62757.	.550506	86622.	5.106
75	8136.5	918.61	7474.	21997.	.078282***	23865.	2.933
80	662.2	1000.00	662.	1868.	.000000	1868.	2.821
FEMALES							
0	100000.0	144.20	14420.	89906.	.828050*	4264459.	42.645
1	85579.8	106.34	9100.	724119.	.908908**	4174553.	48.780
5	76479.7	31.84	2435.	576310.	.974803	3850434.	50.346
10	74044.5	18.34	1358.	366828.	.978614	3474124.	46.919
15	72686.9	24.49	1780.	358983.	.972557	3107295.	42.749
20	70906.5	30.47	2160.	349132.	.967525	2748312.	38.760
25	68746.2	34.55	2375.	337794.	.958279	2399180.	34.899
30	66371.3	49.15	3262.	323701.	.949240	2061387.	31.058
35	63109.0	52.45	3310.	307270.	.932131	1737686.	27.535
40	59798.8	84.14	5031.	286416.	.906446	1430416.	23.920
45	54767.4	103.83	5687.	259620.	.909118	1144001.	20.888
50	49080.7	76.43	3751.	236025.	.902910	884381.	18.019
55	45329.5	119.46	5415.	213110.	.847482	648355.	14.303
60	39914.4	190.06	7586.	170607.	.740978	435245.	10.904
65	32328.3	344.17	11126.	133826.	.588172	254639.	7.877
70	21202.0	515.00	10919.	78713.	.414243	120813.	5.698
75	10283.0	731.65	7224.	32606.	.225522***	42101.	4.094
80	2759.4	1000.00	2759.	9495.	.000000	9495.	3.441

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	1(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	144.64	144.64	89875.	.838712*	4761164.	47.612
1	85535.7	74.01	6331.	329481.	.932781**	4671289.	54.819
5	79204.9	24.53	1943.	391167.	.982365	4341808.	54.819
10	77262.0	10.57	816.	384269.	.986279	3950640.	51.133
15	76445.7	16.91	1293.	378997.	.980445	3566371.	46.652
20	75152.9	22.24	1672.	371585.	.974880	3187375.	42.412
25	73481.2	28.06	2062.	362251.	.969700	2815789.	38.320
30	71419.3	32.60	2329.	351275.	.964391	2453358.	34.354
35	69090.8	38.72	2675.	338766.	.953374	2102263.	30.428
40	66415.8	54.85	3643.	322971.	.934989	1763496.	26.552
45	62772.6	75.76	4755.	301975.	.910454	1440525.	22.948
50	58017.2	104.47	6061.	274934.	.879151	1138551.	19.624
55	51956.3	139.14	7229.	241708.	.843406	863617.	16.622
60	44726.9	176.87	7911.	203858.	.806521	621909.	13.905
65	36816.3	213.66	7866.	164416.	.749704	418051.	11.355
70	28950.0	296.88	8595.	123263.	.657767	253635.	8.761
75	20355.2	406.73	8279.	81078.	.378101***	130372.	6.405
80	12076.1	1000.00	12076.	49294.	.000000	49294.	4.082
FEMALES							
0	100000.0	133.25	13325.	90672.	.847479*	4990973.	49.910
1	86675.0	78.64	6816.	333067.	.930922**	4900301.	56.537
5	79858.6	24.17	1930.	394469.	.981905	4567233.	57.191
10	77928.8	11.87	925.	387331.	.986380	4172765.	53.546
15	77003.5	15.39	1185.	382055.	.982350	3785434.	49.159
20	75818.6	19.95	1512.	375312.	.976938	3403379.	44.888
25	74306.6	26.24	1950.	366657.	.968883	3028067.	40.751
30	72356.5	36.13	2614.	355248.	.963565	2661410.	36.782
35	69742.5	36.75	2563.	342304.	.954373	2306163.	33.067
40	67179.2	54.84	3442.	326686.	.945466	1963859.	29.233
45	63495.1	54.21	3422.	308871.	.937159	1637173.	25.734
50	60053.1	71.97	4322.	289461.	.919422	1328302.	22.119
55	55731.3	89.86	5008.	266137.	.889539	1038841.	18.640
60	50723.4	133.10	6751.	236739.	.839438	772704.	15.234
65	43972.2	192.24	8453.	198728.	.769297	535965.	12.189
70	35518.9	278.32	9886.	152881.	.710513	337237.	9.495
75	25633.4	304.87	7817.	108624.	.410796***	184357.	7.192
80	17816.1	1000.00	17816.	75733.	.000000	75733.	4.251

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 5

AGE(X)	1(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	142.59	14259.	90019.	.842175*	4906427.	49.064
1	85741.3	69.37	5948.	331068.	.936033**	4816408.	56.174
5	79793.0	24.13	1925.	394152.	.982738	4485340.	56.212
10	77867.7	10.23	796.	387348.	.987364	4091188.	52.540
15	77071.4	15.07	1161.	382453.	.984120	3703841.	48.057
20	75909.9	16.70	1268.	376380.	.980345	3321388.	43.754
25	74642.1	22.66	1691.	368982.	.975214	2945008.	39.455
30	72950.7	26.96	1967.	359836.	.969871	2576026.	35.312
35	70983.8	33.38	2370.	348995.	.959204	2216189.	31.221
40	68614.2	48.47	3325.	334757.	.942342	1867195.	27.213
45	65228.8	67.32	4395.	315456.	.917902	1532437.	23.472
50	60893.5	97.94	5964.	289558.	.888205	1216698.	19.985
55	54929.5	127.15	6984.	257186.	.852183	927424.	16.884
60	47945.1	171.49	8222.	219170.	.811620	670237.	13.979
65	39722.8	208.76	9263.	177883.	.748732	451068.	11.353
70	31430.2	304.99	9586.	133186.	.652472	273185.	8.692
75	21844.4	408.74	8929.	86900.	.379277***	139999.	6.409
80	12915.8	1000.00	12916.	53098.	.000000	53098.	4.111
FEMALES							
0	100000.0	124.31	12431.	91299.	.858553*	5172680.	51.727
1	87569.4	70.23	6150.	337978.	.937511**	5081381.	58.027
5	81419.4	22.82	1858.	402451.	.983106	4743404.	58.259
10	79561.1	10.83	861.	395652.	.988000	4340953.	54.561
15	78699.7	13.19	1038.	390904.	.985174	3945301.	50.131
20	77662.0	16.49	1280.	385109.	.980413	3554396.	45.768
25	76381.5	22.74	1737.	377566.	.973032	3169288.	41.193
30	74644.7	31.30	2336.	367383.	.967621	2791722.	37.400
35	72308.7	33.50	2422.	355488.	.958778	2424339.	33.528
40	69886.6	49.22	3440.	340834.	.951734	2068851.	29.603
45	66447.0	47.27	3141.	324383.	.941358	1728017.	26.006
50	63306.3	70.58	4468.	305361.	.920253	1403653.	22.172
55	58838.1	89.61	5272.	281009.	.889916	1098272.	18.666
60	53565.7	132.58	7101.	250075.	.830371	817263.	15.257
65	46464.2	192.97	8966.	209905.	.769119	567188.	12.207
70	37498.0	277.86	10419.	161442.	.712149	357283.	9.528
75	27078.9	301.69	8169.	114971.	.412936***	195840.	7.232
80	18909.4	1000.00	18909.	80870.	.000000	80870.	4.277

AGE(X)	1(X)	1000 q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	145.93	14593.	89785.	.833878*	4885347.	48.853
1	85406.9	84.73	7237.	327154.	.923066**	4795362.	56.150
5	78170.3	30.65	2396.	384862.	.978153	4468408.	57.162
10	75774.6	12.77	968.	376454.	.985776	4083545.	53.891
15	74807.1	9.23	1174.	371099.	.987508	3707091.	49.555
20	73632.7	15.70	680.	366464.	.988312	3335992.	45.306
25	72952.7	14.16	1033.	362180.	.983521	2969528.	40.705
30	71919.4	18.83	1354.	356212.	.978207	2607348.	36.254
35	70565.3	24.81	1751.	348449.	.969729	2251136.	31.901
40	68814.3	35.87	2468.	337901.	.955619	1902687.	27.650
45	66346.2	53.14	3530.	322905.	.928920	1564786.	23.585
50	62815.8	89.63	5650.	299953.	.897899	1241881.	19.770
55	57165.4	115.45	6600.	269328.	.854910	941928.	16.477
60	50565.6	178.60	9031.	230251.	.808292	672600.	13.302
65	41534.7	207.67	8625.	186110.	.717918	442349.	10.650
70	32909.2	376.00	12374.	133612.	.588270	256239.	7.786
75	20535.6	468.99	9631.	78600.	.359038***	122628.	5.972
80	10904.5	1000.00	10904.	44028.	.000000	44028.	4.038

FEMALES

0	100000.0	120.06	12006.	91596.	.870710*	5491032.	54.910
1	87994.3	46.70	4109.	343759.	.932861**	5399436.	61.361
5	83885.4	21.90	1838.	414833.	.984260	5055677.	60.269
10	82047.8	9.44	774.	408304.	.990221	4640844.	56.563
15	81273.6	10.13	823.	404311.	.991115	4232540.	52.078
20	80450.7	7.63	614.	400718.	.990242	3828229.	47.585
25	79836.7	11.90	950.	396808.	.985715	3427511.	42.932
30	78886.6	16.70	1317.	391100.	.981744	3030703.	38.418
35	77569.3	19.84	1539.	383999.	.975875	2639563.	34.028
40	76030.3	28.50	2167.	374735.	.973419	2255564.	29.667
45	73863.7	24.61	1818.	364774.	.949270	1880829.	25.464
50	72046.1	77.51	5584.	346269.	.911656	1516055.	21.043
55	66461.6	100.09	6652.	315678.	.871667	1169785.	17.601
60	59809.7	159.72	9523.	275167.	.815680	854107.	14.280
65	50256.9	213.60	10755.	224448.	.733981	578941.	11.520
70	39522.2	332.68	13148.	164741.	.678080	354493.	8.969
75	26374.0	305.79	8065.	111707.	.411299***	189752.	7.195
80	18309.0	1000.00	18309.	78045.	.000000	78045.	4.263

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 2

AGE(X)	1(X)	1000 q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	106.45	10645.	92549.	.879439*	5371569.	53.716
1	89355.2	57.36	5125.	347171.	.948955**	5279020.	59.079
5	84230.1	18.41	1551.	417274.	.987028	4931849.	58.552
10	82679.3	7.43	614.	411861.	.990550	4514576.	54.603
15	82065.1	14.49	943.	407969.	.987161	4102715.	49.993
20	81122.5	11.21	1153.	402753.	.982609	3694746.	45.545
25	79969.9	20.62	1649.	395727.	.978146	3292015.	41.186
30	78321.0	23.11	1810.	387079.	.974575	2896288.	36.980
35	76510.6	27.79	2126.	377238.	.965890	2509209.	32.796
40	74384.4	40.61	3021.	364370.	.954260	2131971.	28.662
45	71363.6	51.09	3646.	347704.	.924488	1767601.	24.769
50	67717.9	101.25	6857.	321448.	.890186	1419897.	20.968
55	60861.3	119.34	7263.	286149.	.863499	1098449.	18.048
60	53598.1	155.99	8361.	247089.	.835858	812300.	15.155
65	45237.5	173.80	7862.	206531.	.785418	565211.	12.494
70	37375.1	263.94	9865.	162213.	.714444	358680.	9.597
75	27510.3	314.93	8664.	115892.	.410115***	196466.	7.142
80	18846.6	1000.00	18847.	80574.	.000000	80574.	4.275

FEMALES

0	100000.0	107.01	10701.	92509.	.887021*	5678626.	56.786
1	89299.0	34.68	3097.	351001.	.964254**	5586117.	60.731
5	86201.7	15.55	1341.	427657.	.988723	5235116.	56.651
10	84861.1	6.93	588.	422835.	.992163	4807459.	52.029
15	84272.7	8.75	737.	419521.	.990428	4384624.	47.466
20	83535.6	10.40	869.	415505.	.987137	3965103.	42.939
25	82666.4	15.35	1269.	410160.	.982734	3549599.	38.569
30	81397.6	19.22	1564.	403078.	.980208	3139439.	34.276
35	79833.6	20.38	1627.	395100.	.975571	2736361.	29.937
40	78206.5	28.56	2234.	385448.	.973556	2341260.	25.744
45	75972.8	37.24	1843.	375256.	.944398	1955812.	21.322
50	74129.4	87.42	6503.	354390.	.906193	1520556.	18.131
55	67626.7	100.48	6795.	321146.	.874158	1226166.	14.877
60	60831.7	154.04	9370.	280732.	.828724	905020.	12.411
65	51461.2	197.65	9863.	232650.	.761168	624288.	9.415
70	41598.6	297.20	12363.	177085.	.705691	391638.	7.339
75	29235.6	300.20	8484.	124968.	.417544***	214553.	4.317
80	20751.5	1000.00	20751.	89585.	.000000	89585.	4.317

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE (x)	1(x)	1000 Q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	136.18	13618.	90468.	.836560*	4312198.	43.12
1	86382.2	102.55	8859.	327812.	.910948**	4221730.	48.87
5	77523.9	33.99	2635.	381031.	.975189	3893918.	50.22
10	74888.7	15.31	1146.	371577.	.979176	3512887.	46.90
15	73742.3	26.43	1949.	363840.	.968477	3141309.	42.59
20	71793.6	36.76	2639.	352370.	.962504	2777469.	38.68
25	69154.6	38.26	2646.	339158.	.960050	2425099.	35.06
30	66508.6	41.70	2774.	325609.	.952372	2085941.	31.36
35	63734.9	53.81	3430.	310100.	.937626	1760332.	27.62
40	60305.3	71.42	4307.	290758.	.909098	1450232.	24.04
45	55998.0	111.88	6265.	264328.	.907037	1159474.	20.70
50	49733.1	71.67	3564.	239755.	.892830	895146.	17.99
55	46168.9	145.42	6714.	214060.	.841638	655391.	14.19
60	39455.2	173.51	6846.	180161.	.767126	441331.	11.18
65	32609.3	304.70	9936.	138206.	.635837	261170.	8.00
70	22673.3	449.69	10196.	87877.	.375629	122963.	5.42
75	12477.4	941.80	11751.	33009.	.059216***	35087.	2.81
80	726.2	1000.00	726.	2078.	.000000	2078.	2.86

FEMALES

0	100000.0	140.34	14034.	90176.	.832310*	4343918.	43.435
1	85966.0	104.03	8943.	325979.	.907490**	4253742.	49.482
5	77023.3	38.74	2984.	377656.	.969621	3927763.	50.994
10	74039.2	21.68	1605.	366184.	.974488	3550107.	47.949
15	72434.3	29.43	2132.	356841.	.972236	3183923.	43.956
20	70302.3	26.04	1831.	346934.	.971624	2827082.	40.213
25	68471.4	30.77	2107.	337089.	.965013	2480148.	36.223
30	66364.4	39.34	2611.	325296.	.957749	2143058.	33.595
35	63753.9	45.29	2887.	311552.	.942241	1817763.	30.512
40	60866.7	70.82	4311.	293557.	.923778	1506211.	27.746
45	56556.0	82.03	4640.	271181.	.924074	1212654.	24.442
50	51916.5	69.27	3596.	250592.	.906119	941473.	21.134
55	48320.1	120.32	5814.	227066.	.859352	690881.	18.298
60	42506.2	163.76	6961.	195129.	.734105	463816.	10.912
65	35545.6	388.04	13793.	143245.	.566425	268686.	7.559
70	21752.6	507.99	11050.	81138.	.420348	125441.	5.767
75	10702.5	725.30	7763.	34106.	.230159***	44303.	4.139
80	2939.9	1000.00	2940.	10197.	.000000	10197.	3.468

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 4

AGE (x)	1(x)	1000 Q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	115.56	11556.	91911.	.864603*	4994323.	49.943
1	88444.2	75.68	6693.	340391.	.934156**	4902412.	55.429
5	81751.1	24.07	1967.	403837.	.982815	4562022.	55.804
10	79783.7	10.14	809.	368897.	.986791	4158185.	52.118
15	78975.5	16.31	1288.	391654.	.981242	3761288.	47.626
20	77686.7	21.24	1650.	384308.	.975716	3369633.	43.375
25	76036.4	27.39	2083.	374975.	.971142	2985326.	39.262
30	73953.7	30.37	2246.	364154.	.966105	2610350.	35.297
35	71708.0	37.53	2692.	351811.	.954976	2246196.	31.324
40	69016.5	52.81	3644.	335971.	.937748	1894385.	27.448
45	65372.0	72.22	4721.	315056.	.919064	1558414.	23.839
50	60650.6	90.32	5478.	289537.	.893203	1243357.	20.500
55	55172.3	124.90	6891.	258633.	.858894	953800.	17.288
60	48281.0	159.62	7707.	222139.	.823626	695167.	14.398
65	40574.4	196.31	7965.	182959.	.758978	473028.	11.658
70	32609.3	296.66	9674.	138862.	.667059	290069.	8.895
75	22935.5	384.53	8819.	92629.	.387402***	151207.	6.593
80	14116.1	1000.00	14116.	58578.	.000000	58578.	4.150

FEMALES

0	100000.0	112.77	11277.	92106.	.872063*	5230669.	52.307
1	88723.3	61.81	5484.	345925.	.943155**	5138562.	57.917
5	83239.3	23.79	1980.	411245.	.982244	4794637.	57.801
10	81258.8	11.57	940.	403943.	.986733	4383392.	53.944
15	80318.4	14.98	1203.	398584.	.984619	3979449.	49.546
20	79118.2	15.79	1249.	392453.	.981425	3580865.	45.261
25	77866.6	15.79	1249.	385163.	.975811	3188412.	40.947
30	76199.2	21.41	1667.	375847.	.971702	2803248.	36.788
35	74139.5	27.03	2060.	365211.	.963702	2427402.	32.741
40	71944.8	29.60	2195.	351954.	.958104	2022191.	28.664
45	68837.0	43.20	3108.	337209.	.939114	1710237.	24.845
50	66046.7	40.53	2790.	316678.	.907137	1373027.	20.789
55	60624.4	82.10	5422.	287270.	.871092	1056350.	17.424
60	54283.6	104.59	6341.	250238.	.815150	769080.	14.168
65	45811.8	156.07	8472.	203982.	.731923	518841.	11.325
70	35780.9	218.94	11842.	149299.	.665128	314859.	8.800
75	23938.7	330.99	8156.	99303.	.400202***	165560.	6.916
80	15782.5	340.71	15783.	66258.	.000000	66258.	4.198

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	1(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	122.59	12259.	91419.	.857921*	4994842.	49.948
1	87741.4	76.50	6712.	337542.	.932274**	4903423.	55.885
5	81029.4	25.86	2095.	399909.	.981545	4565881.	56.348
10	78934.2	10.86	857.	392529.	.986550	4165973.	52.778
15	78077.2	16.07	1255.	387249.	.983750	3773444.	48.330
20	76822.4	16.43	1262.	380926.	.980504	3386195.	44.078
25	75560.1	22.61	1709.	373329.	.975401	3005239.	39.773
30	73851.5	26.63	1967.	364341.	.969942	2631710.	35.635
35	71884.7	33.58	2414.	355389.	.959523	2267369.	31.542
40	69471.1	47.62	3308.	339085.	.943090	1913980.	27.551
45	66163.0	66.67	4411.	319788.	.921962	1574895.	23.803
50	61752.1	90.22	5571.	294832.	.894570	1255107.	20.325
55	56180.7	122.15	6862.	263748.	.858083	960275.	17.093
60	49318.4	164.44	8110.	226317.	.819685	696528.	14.123
65	41208.5	199.32	8214.	185509.	.749250	470210.	11.410
70	32995.0	314.99	10393.	138993.	.648572	284701.	8.629
75	22602.0	404.63	9145.	90147.	.381321***	145708.	6.447
80	13456.7	1000.00	13457.	55562.	.000000	55562.	4.129

FEMALES							
0	100000.0	113.13	11313.	92081.	.873446*	5323707.	53.237
1	88687.3	56.98	5052.	346642.	.946451**	5231626.	58.990
5	83633.6	23.11	1933.	413337.	.982951	4886984.	58.433
10	81701.1	10.85	886.	406290.	.987978	4473647.	54.756
15	80814.9	13.21	1068.	401406.	.986908	4067358.	50.329
20	79747.3	12.97	1034.	396150.	.984329	3665952.	45.970
25	78712.9	18.41	1449.	389942.	.978833	3269802.	41.541
30	77264.1	23.98	1853.	381689.	.974596	2879855.	37.273
35	75411.4	26.86	2026.	371992.	.967134	2498171.	33.127
40	73385.5	39.03	2865.	359766.	.962560	2126178.	28.973
45	70521.0	55.78	3523.	346297.	.942222	1766412.	25.048
50	67997.7	80.59	5480.	326288.	.908642	1420116.	20.885
55	62517.6	103.07	6444.	296479.	.871594	1093827.	17.496
60	56074.1	156.66	8784.	258410.	.815755	797348.	14.220
65	47289.8	216.96	10260.	210799.	.733094	538938.	11.397
70	37029.9	330.69	12246.	154536.	.669696	328139.	8.861
75	24784.4	329.72	8172.	103492.	.403860***	173603.	7.005
80	16612.4	1000.00	16612.	70112.	.000000	70111.	4.220

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 1

AGE(X)	1(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	145.73	14573.	89799.	.839195*	5041320.	50.413
1	85427.2	69.71	5955.	329799.	.934298**	4951521.	57.962
5	79472.1	26.83	2133.	392029.	.980951	4621722.	58.155
10	77339.5	11.05	855.	384561.	.987682	4229695.	54.690
15	76485.0	13.60	1040.	379824.	.987011	3845132.	50.273
20	75444.6	8.96	676.	375532.	.988649	3465308.	45.932
25	74768.4	13.76	1029.	371270.	.988280	3089776.	41.325
30	73739.5	17.71	1306.	365433.	.979339	2718506.	36.866
35	72433.8	23.67	1714.	357883.	.970590	2353073.	32.486
40	70719.5	35.29	2496.	342414.	.956979	1995190.	28.213
45	68223.6	51.03	3482.	337358.	.932234	1647832.	24.153
50	64741.9	85.40	5529.	328066.	.904411	1315418.	20.318
55	59213.0	106.73	6320.	309887.	.864846	1005531.	16.982
60	52893.2	166.97	8832.	242387.	.817624	725265.	13.712
65	44061.5	200.87	8850.	198181.	.730015	482878.	10.959
70	35211.0	356.48	12552.	144675.	.609794	284697.	8.085
75	22659.1	442.62	10029.	88222.	.369939***	140022.	6.179
80	12629.7	1000.00	12630.	51800.	.000000	51800.	4.101

FEMALES							
0	100000.0	115.44	11544.	91920.	.873636*	5503735.	55.037
1	88456.4	50.46	4464.	344898.	.951084**	5411815.	61.181
5	83992.7	21.53	1809.	415442.	.984499	5066917.	60.326
10	82184.0	9.33	767.	409002.	.990329	4651475.	56.598
15	81416.9	10.01	815.	405046.	.990649	4242473.	52.108
20	80401.7	8.68	700.	401259.	.988969	3837427.	47.610
25	79901.8	13.40	1071.	396833.	.984012	3436168.	43.005
30	78831.2	18.61	1467.	390488.	.979522	3039335.	38.555
35	77364.2	22.38	1731.	382491.	.972941	2648847.	34.239
40	75632.6	31.84	2408.	372142.	.970058	2266356.	29.965
45	73224.1	27.98	2049.	360999.	.949667	1894214.	25.869
50	71175.6	73.33	5220.	342829.	.915806	1533215.	21.541
55	65956.0	95.91	6326.	313965.	.879787	1190386.	18.048
60	59629.9	147.09	8771.	276222.	.825230	876421.	14.698
65	50859.0	207.22	10539.	227947.	.748238	600199.	11.801
70	40319.8	307.94	12416.	170559.	.693872	372252.	9.232
75	27903.6	303.51	8469.	118346.	.413238***	201693.	7.228
80	19434.7	1000.00	19435.	83347.	.000000	83347.	4.289

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 2

AGE(x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	116.68	11668.	91832.	.871475*	5300976.	53.011
1	88331.9	53.34	4711.	343905.	.950837**	5209144.	58.971
5	83620.7	18.12	1515.	414315.	.987237	4865239.	58.182
10	82105.4	7.31	600.	409028.	.990728	4450923.	54.210
15	81505.6	11.25	917.	405235.	.986833	4041896.	49.590
20	80588.5	15.10	1217.	399900.	.981602	3636661.	45.126
25	79371.4	21.74	1726.	392542.	.976722	3236761.	40.780
30	77645.6	24.85	1929.	383405.	.972919	2844219.	36.631
35	75716.4	29.37	2224.	373302.	.964033	2460714.	32.508
40	73492.3	42.76	3143.	359605.	.951864	2087792.	28.408
45	70349.8	53.75	3781.	342295.	.921411	1728187.	24.566
50	66568.4	104.84	6979.	315395.	.887098	1385891.	20.819
55	59589.6	121.91	7265.	279786.	.860133	1070496.	17.964
60	52324.9	160.31	8388.	240653.	.832487	790710.	15.112
65	43936.4	176.09	7737.	200341.	.788284	550057.	12.519
70	36199.8	254.96	9230.	157925.	.717987	349716.	9.661
75	26970.3	318.32	8585.	113388.	.408791***	191791.	7.111
80	18385.0	1000.00	18385.	78402.	.000000	78402.	4.264

FEMALES							
0	100000.0	114.99	11499.	91950.	.874478*	5541701.	55.417
1	88500.6	49.23	4357.	345289.	.953890**	5449750.	61.579
5	84143.7	17.31	1436.	417078.	.987448	5104462.	60.664
10	82687.5	7.71	638.	411843.	.991254	4687384.	56.688
15	82049.6	9.78	803.	408241.	.988956	4275541.	52.109
20	81246.8	12.32	1001.	403732.	.984882	3867300.	47.599
25	80246.1	17.26	1441.	397628.	.979390	3463568.	43.162
30	78805.2	23.31	1837.	389433.	.976419	3065940.	38.905
35	76968.1	23.86	1836.	380250.	.971237	2676506.	34.774
40	75132.0	33.79	2539.	369313.	.968363	2296256.	30.563
45	72593.3	29.41	2135.	357629.	.946157	1926943.	26.544
50	70458.4	79.02	5567.	338373.	.915256	1569314.	22.273
55	64890.9	90.96	5903.	309698.	.887751	1230940.	18.969
60	58988.3	135.67	8003.	274935.	.845095	921242.	15.617
65	50985.6	177.16	9033.	232346.	.783360	646308.	12.676
70	41952.9	264.62	11101.	182011.	.734028	413962.	9.867
75	30851.4	267.81	8262.	133601.	.424013***	231951.	7.318
80	22589.0	1000.00	22589.	98350.	.000000	98350.	4.354

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 3

AGE(x)	1(x)	1000 q(x)	D(x)	L(x)	P(x)	T(x)	E(x)
MALES							
0	100000.0	155.36	15536.	89125.	.817501*	4149813.	41.498
1	84464.4	107.93	9116.	319626.	.905865**	4060688.	48.076
5	75348.4	34.34	2588.	370273.	.974701	3741063.	49.650
10	72760.8	15.94	1159.	360905.	.978325	3370790.	46.327
15	71601.3	27.51	1970.	353083.	.981355	3009884.	42.037
20	69631.8	37.35	2531.	341832.	.976321	2656802.	38.155
25	67101.0	37.25	2500.	329256.	.970502	2314970.	34.500
30	64601.4	41.83	2703.	316256.	.962874	1985714.	30.738
35	61898.9	52.65	3259.	301547.	.938464	1669463.	26.971
40	58639.9	70.92	4159.	282803.	.908815	1368116.	23.331
45	54481.4	113.00	6156.	257016.	.900341	1085313.	19.921
50	48325.0	84.62	4089.	231402.	.876348	828297.	17.140
55	44235.8	166.30	7356.	202789.	.821459	596895.	13.493
60	36879.6	193.23	7126.	166583.	.742209	394106.	10.686
65	29753.4	337.82	10051.	123639.	.603107	227523.	7.647
70	19702.2	486.11	9577.	74568.	.364441	103884.	5.273
75	10124.8	926.38	9372.	27176.	.073030***	29317.	2.896
80	745.4	1000.00	745.	2141.	.000000	2141.	2.872

FEMALES

0	100000.0	143.15	14315.	89979.	.829238*	4299513.	42.995
1	85685.0	105.62	9050.	324640.	.907639**	4209534.	49.128
5	76634.8	35.15	2693.	376440.	.972318	3884894.	50.694
10	73941.4	19.95	1475.	366020.	.976628	3508453.	47.449
15	72466.5	26.87	1947.	357465.	.972476	3142434.	43.364
20	70519.6	28.20	1989.	347626.	.969616	2784969.	39.492
25	68530.9	32.63	2236.	337064.	.961778	2437342.	35.566
30	66294.7	44.00	2917.	324181.	.953657	2100278.	31.681
35	63377.6	48.79	3092.	309157.	.937319	1776098.	28.024
40	60285.3	77.28	4659.	289779.	.915489	1466941.	24.333
45	55626.2	92.34	5137.	265289.	.916819	1177162.	21.162
50	50489.5	73.09	5690.	243222.	.904138	911873.	18.061
55	46799.4	120.43	5636.	219907.	.853112	668650.	14.288
60	41163.2	176.97	7284.	187605.	.737769	448743.	10.902
65	33878.7	365.83	12394.	138409.	.576904	261138.	7.708
70	21484.9	513.40	11030.	79849.	.415444	122729.	5.712
75	10454.6	730.79	7640.	33173.	.226400***	42881.	4.102
80	2814.5	1000.00	2814.	9708.	.000000	9708.	3.449

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE (X)	T(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	128.23	12823.	91024.	.853369*	4888353.	48.884
1	87177.4	74.84	6525.	6525.	.933572**	4797329.	55.030
5	80652.7	24.42	1966.	35566.0	.982506	4461669.	55.320
10	78683.5	10.40	818.	35834.0	.986471	3671957.	51.641
15	77865.2	16.69	1300.	35137.2	.980855	4063329.	47.158
20	76565.5	21.64	1657.	38607.7	.970567	3285880.	42.916
25	74908.6	27.60	2067.	37868.5	.965417	2507195.	38.810
30	72841.2	31.32	2281.	36937.5	.954385	2537820.	34.840
35	70559.8	37.95	2678.	35850.3	.936660	2179317.	30.886
40	67882.0	53.58	3637.	34610.5	.914968	1833213.	23.006
45	64244.8	73.69	4731.	33031.7	.886185	1502896.	23.393
50	59513.4	97.32	5792.	30939.5	.851070	1193500.	20.054
55	53721.4	132.08	7096.	28308.7	.814942	910414.	16.947
60	46625.6	168.34	7849.	25086.7	.754267	659546.	14.146
65	38776.6	205.16	7955.	21350.6	.662251	446041.	11.503
70	30821.2	296.78	9147.	17399.5	.382756***	272046.	8.827
75	21674.6	396.07	8583.	13123.8	.000000	140808.	6.497
80	13090.9	1000.00	13091.	86913.		53895.	4.117

FEMALES

0	100000.0	121.65	12165.	91484.	.861146*	5121423.	51.214
1	87835.0	69.74	6126.	339088.	.937554**	5029939.	57.266
5	81709.2	23.80	1944.	403685.	.982212	4690851.	57.409
10	79764.8	11.63	928.	396504.	.986660	4287166.	53.748
15	78837.0	15.07	1188.	391215.	.983529	3890661.	49.351
20	77649.2	17.90	1390.	384772.	.979130	3499466.	45.067
25	76259.5	23.90	1822.	376742.	.972346	3114674.	40.843
30	74437.1	31.50	2345.	366323.	.967632	2737933.	36.782
35	72092.1	33.26	2398.	354466.	.958962	2371610.	32.697
40	69694.2	49.08	3421.	339919.	.951807	2017144.	28.943
45	66273.3	47.26	3132.	323537.	.938199	1677225.	25.308
50	63141.1	77.07	4866.	303543.	.913271	1353687.	21.439
55	58275.5	97.20	5666.	277217.	.880359	1050145.	18.020
60	52611.2	144.50	7602.	244050.	.827284	772928.	14.691
65	45008.9	205.70	9258.	201899.	.750666	528878.	11.751
70	35750.6	304.27	10878.	151559.	.687988	326979.	9.146
75	24872.8	323.14	8037.	104270.	.405597***	175420.	7.053
80	16835.4	1000.00	16835.	71150.	.000000	71150.	4.226

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 5

AGE (X)	T(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	130.64	13064.	90855.	.851964*	4961675.	49.617
1	86936.0	72.57	6309.	335127.	.934547**	4870820.	56.928
5	80627.4	24.99	2015.	358100.	.982145	4535693.	56.928
10	78612.8	10.54	829.	350992.	.986959	4137593.	52.633
15	77784.2	15.57	1211.	358589.	.983897	3746600.	48.167
20	76573.5	16.65	1275.	359679.	.980329	3360707.	43.889
25	75298.5	22.75	1713.	372211.	.975188	2981028.	39.589
30	73585.8	26.93	1981.	362975.	.969762	2608817.	35.453
35	71604.3	33.64	2409.	342000.	.959170	2245841.	31.365
40	69195.5	48.27	3340.	317627.	.942445	1893842.	27.369
45	65855.4	67.31	4433.	292673.	.919791	1556215.	23.631
50	61422.6	94.04	5776.	260889.	.891401	1238020.	20.156
55	55646.6	124.67	6938.	223088.	.855106	945347.	16.988
60	48709.0	168.00	8183.	181955.	.785622	684458.	14.052
65	40526.1	204.07	8270.	136301.	.749090	461370.	11.385
70	32256.0	309.76	9992.	88683.	.650640	279415.	8.662
75	22264.4	406.73	9056.	54431.	.380336***	143114.	6.428
80	13208.8	1000.00	13209.		.000000	54431.	4.121

FEMALES

0	100000.0	118.37	11837.	91714.	.866259*	5253866.	52.539
1	88162.8	63.72	5618.	341616.	.941990**	5162152.	58.553
5	82545.1	22.88	1889.	408004.	.983092	4820737.	58.401
10	80656.3	10.80	871.	401105.	.988034	4412733.	54.710
15	79785.7	13.15	1049.	396306.	.986137	4011628.	50.280
20	78736.6	14.59	1148.	390812.	.982527	3615322.	45.917
25	77588.8	20.40	1583.	383983.	.976174	3224510.	41.559
30	76005.2	27.32	2077.	374834.	.971398	2840527.	37.373
35	73928.6	29.92	2212.	364113.	.963285	2465693.	33.552
40	71716.7	43.72	3135.	350745.	.957603	2101579.	29.304
45	68581.3	41.01	2813.	335875.	.942047	1750834.	25.529
50	65768.6	75.65	4973.	316410.	.914421	1414960.	21.514
55	60795.3	96.35	5858.	289332.	.880799	1098550.	18.070
60	54937.4	144.48	7938.	254843.	.827554	809218.	14.730
65	46909.9	205.13	9641.	210897.	.751133	554375.	11.795
70	37358.8	303.89	11353.	158411.	.691099	343478.	9.194
75	26005.8	316.10	8220.	109478.	.408441***	185067.	7.116
80	17785.4	1000.00	17785.	75589.	.000000	75589.	4.250

*P(BIRTH), **P(0-4), ***T(80)/T(75)

A P P E N D I X V

A D J U S T E D L I F E T A B L E S B Y " T O T A L "

Note : See Appendix II

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	122.05	12205.	91457.	.863532*	5269421.	52.694
1	87795.1	61.91	5436.	340309.	.942632**	5177944.	58.978
5	82359.5	23.32	1920.	406796.	.983514	4837655.	58.738
10	84439.1	9.49	763.	400287.	.989412	4430658.	55.081
15	79675.7	11.70	932.	396049.	.989847	4030372.	50.585
20	78743.8	8.59	676.	392028.	.989115	3634323.	46.154
25	78067.3	13.20	1030.	387761.	.985186	3242295.	41.532
30	77037.0	16.45	1267.	382016.	.980656	2854535.	37.054
35	75769.6	22.29	1689.	374626.	.971771	2472518.	32.632
40	74080.9	34.31	2541.	364051.	.958865	2097892.	28.319
45	71539.5	48.33	3458.	349054.	.933274	1733841.	24.236
50	68082.0	86.06	5859.	325763.	.905064	1384787.	20.340
55	62223.1	104.65	6512.	294836.	.866732	1059025.	17.020
60	55711.3	165.23	9205.	255544.	.816397	744188.	13.717
65	46506.3	205.61	9562.	208625.	.728000	508644.	10.937
70	36943.9	355.57	13136.	151879.	.612030	300019.	8.121
75	23807.8	438.25	10434.	92955.	.372520***	148140.	6.222
80	13374.1	1000.00	13374.	55185.	.000000	55185.	4.126

FEMALES							
0	100000.0	107.38	10738.	92484.	.880657*	5560388.	55.604
1	89262.2	51.56	4602.	347845.	.952164**	5467905.	61.257
5	84660.2	19.07	1614.	419265.	.986257	5120060.	60.478
10	83045.8	8.31	690.	413503.	.991389	4700795.	56.605
15	82355.5	8.91	734.	409943.	.990894	4287292.	52.058
20	81621.6	9.30	759.	406210.	.988259	3877349.	47.504
25	80862.4	14.20	1149.	401440.	.983150	3471139.	42.927
30	79713.8	19.53	1557.	394674.	.978366	3069499.	38.509
35	78156.7	23.77	1858.	386138.	.971411	2675023.	34.226
40	76298.5	33.52	2558.	375099.	.968231	2288885.	29.999
45	73741.0	39.96	2209.	363182.	.949236	1913786.	25.953
50	71531.8	72.21	5166.	344745.	.916509	1550604.	21.677
55	66366.3	95.65	6348.	315962.	.882892	1205859.	18.170
60	60018.5	140.84	8453.	278960.	.827752	889897.	14.827
65	51565.6	208.80	10767.	230910.	.752992	610936.	11.848
70	40798.4	295.29	12047.	173873.	.697485	380026.	9.315
75	28751.0	312.76	8992.	121274.	.411727***	206153.	7.170
80	19758.7	1000.00	19759.	84879.	.000000	84879.	4.296

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	128.45	12845.	91008.	.861819*	5217526.	52.175
1	87154.8	50.01	4359.	339901.	.952145**	5126517.	58.821
5	82779.9	17.83	1476.	410288.	.987445	4786616.	57.812
10	81319.5	7.18	584.	405137.	.990905	4376328.	53.816
15	80735.5	11.02	890.	401453.	.986501	3971190.	49.188
20	79845.5	16.00	1278.	396034.	.980599	3569738.	44.708
25	78567.9	22.86	1796.	388150.	.975281	3173704.	40.394
30	76772.2	26.63	2044.	378751.	.971242	2785354.	36.281
35	74728.1	30.95	2313.	367859.	.962195	2406603.	32.205
40	72415.4	44.88	3250.	353952.	.949503	2038745.	28.153
45	69165.3	56.38	3899.	336078.	.918329	1684793.	24.359
50	65266.0	108.48	7080.	308630.	.883992	1348714.	20.665
55	58186.1	124.45	7242.	272827.	.856784	1040084.	17.875
60	50944.6	164.65	8388.	233754.	.829137	767257.	15.061
65	42556.8	178.31	7588.	193814.	.790711	533504.	12.536
70	34968.6	246.99	8637.	153251.	.720953	339690.	9.714
75	26331.6	321.61	8469.	110487.	.407386***	186439.	7.080
80	17863.0	1000.00	17863.	75953.	.000000	75953.	4.252

FEMALES							
0	100000.0	130.09	13009.	90894.	.856087*	5372640.	53.726
1	86991.4	62.17	5408.	337149.	.943898**	5281746.	60.716
5	81583.2	19.06	1555.	404029.	.986173	4944597.	60.608
10	80528.5	8.47	680.	398443.	.990342	4540568.	56.737
15	79348.7	10.83	859.	394595.	.987485	4142125.	52.202
20	78489.2	14.22	1116.	389656.	.982668	3747530.	47.746
25	77373.4	20.49	1585.	382903.	.975993	3357874.	43.398
30	75787.9	27.60	2091.	373711.	.972580	2974271.	39.259
35	73696.4	27.24	2007.	363464.	.966970	2601260.	35.297
40	71689.0	38.98	2795.	351458.	.963077	2237796.	31.215
45	68894.3	34.78	2396.	338481.	.947742	1886338.	27.380
50	66498.2	70.37	4679.	320793.	.924315	1547857.	23.277
55	61819.0	81.41	5932.	296514.	.900979	1227064.	19.849
60	56786.5	118.20	6712.	267153.	.861284	930550.	16.387
65	50074.5	161.99	8111.	230094.	.805651	663397.	13.248
70	41963.2	232.97	9776.	185376.	.726209	433303.	10.326
75	32187.1	244.45	7868.	141265.	.430215***	247928.	7.703
80	24319.1	1000.00	24319.	106662.	.000000	106662.	4.386

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 3

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	159.82	15982.				
1	84018.0	114.55	9624.	88813.	0.811272	4031120.	40.311
5	74393.6	34.95	2600.	316823.	0.900974	3942307.	46.922
10	71793.4	16.72	1200.	365468.	0.974003	3625484.	48.733
15	70593.2	28.85	2037.	355967.	0.977266	3260016.	45.408
20	68556.4	36.94	2533.	347874.	0.967162	2904050.	41.138
25	66023.9	37.28	2462.	336451.	0.962891	2556176.	37.286
30	63562.2	43.14	2742.	323965.	0.959842	2219725.	33.620
35	60819.9	52.95	3220.	310955.	0.952063	1895760.	29.825
40	57599.7	72.35	4167.	296049.	0.937618	1584805.	26.057
45	53432.6	117.26	6265.	277581.	0.906041	1288756.	22.374
50	47167.2	101.30	4778.	251500.	0.891225	1011175.	18.924
55	42389.2	192.52	8161.	223891.	0.855522	759675.	16.106
60	34228.3	218.09	7465.	191544.	0.796056	535784.	12.640
65	26763.6	378.67	10135.	152480.	0.711450	344240.	10.057
70	16629.0	531.36	8836.	108481.	0.562819	191761.	7.165
75	7793.1	932.62	7268.	61055.	0.340603	83279.	5.008
80	525.1	1000.00	525.	20796.	0.064277	22224.	2.852
				1429.	0.000000	1428.	2.720

FEMALES							
0	100000.0	131.49	13149.				
1	86851.0	102.70	8920.	90796.	0.840721	4300920.	43.009
5	77931.4	32.44	2528.	329565.	0.911925	4210124.	48.475
10	75403.5	18.68	1409.	383337.	0.974327	3880560.	49.795
15	73994.9	24.95	1847.	373494.	0.978212	3497222.	46.380
20	72148.3	31.94	2304.	365358.	0.971599	3123727.	42.215
25	69844.2	36.21	2529.	354981.	0.965962	2758369.	38.232
30	67315.2	51.20	3467.	342899.	0.956267	2403387.	34.411
35	63848.5	54.95	3509.	327909.	0.946820	2060489.	30.610
40	60339.9	88.08	5315.	310471.	0.928951	1732579.	27.136
45	55025.1	108.65	5978.	288412.	0.902109	1422108.	23.568
50	49046.7	78.55	3852.	260179.	0.905538	1133696.	20.603
55	45194.2	122.70	5545.	235602.	0.900281	873517.	17.810
60	39449.1	195.01	7732.	212108.	0.843511	637914.	14.115
65	31917.2	352.35	11246.	178916.	0.734823	425806.	10.739
70	20671.3	525.95	10872.	131471.	0.579417	246890.	7.735
75	9799.4	744.90	7300.	76177.	0.403640	115417.	5.584
80	2499.8	1000.00	2500.	30748.	0.216456	39242.	4.005
				8494.	0.000000	8494.	3.398

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 4

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	139.49	13949.				
1	86051.3	73.32	6309.	90236.	0.843645	4789939.	47.899
5	79742.0	24.30	1937.	331566.	0.933726	4699704.	54.615
10	77804.6	10.46	814.	393864.	0.982536	4368117.	54.778
15	76990.5	16.75	1289.	386988.	0.986411	3974251.	51.080
20	75701.1	22.24	1684.	381729.	0.980527	3587263.	46.594
25	74017.1	28.06	2077.	374295.	0.974880	3205534.	42.345
30	71940.2	32.60	2345.	364893.	0.969701	2831239.	38.251
35	69594.7	38.72	2694.	353837.	0.964391	2466345.	34.283
40	66900.5	54.85	3670.	341237.	0.953374	2112508.	30.354
45	63230.5	75.76	4790.	325327.	0.934989	1771271.	26.476
50	58440.3	105.45	6162.	304177.	0.909983	1445944.	22.868
55	52278.0	140.42	7341.	276796.	0.878038	1141767.	19.537
60	44936.9	178.46	8019.	243037.	0.841993	864971.	16.546
65	36917.4	215.55	7958.	204636.	0.804811	621934.	13.840
70	28959.9	299.38	8670.	164693.	0.747597	417298.	11.304
75	20289.8	409.93	8317.	123124.	0.655073	252605.	8.723
80	11972.3	1000.00	11972.	80655.	0.377086	129480.	6.382
				48825.	0.000000	48825.	4.078

FEMALES							
0	100000.0	129.66	12966.				
1	87034.0	77.19	6718.	90924.	0.851248	5009226.	50.092
5	80316.0	24.17	1941.	334700.	0.932109	4918302.	56.510
10	78375.1	11.87	931.	396728.	0.981905	4583602.	57.070
15	77444.5	15.39	1192.	389549.	0.986380	4186874.	53.421
20	76252.9	20.14	1536.	384243.	0.982253	3797325.	49.033
25	74716.8	26.49	1980.	377424.	0.976713	3413082.	44.760
30	72737.3	36.48	2653.	368635.	0.968581	3035658.	40.629
35	70084.0	37.11	2601.	357053.	0.963211	2667023.	36.667
40	67483.1	55.37	3736.	343918.	0.953933	2309970.	32.960
45	63746.7	54.73	3489.	328074.	0.944941	1966052.	29.134
50	60257.7	72.65	4378.	310011.	0.936560	1637976.	25.695
55	55879.8	90.71	5069.	290344.	0.918661	1327967.	22.038
60	50811.2	134.33	6825.	266727.	0.888519	1037623.	18.569
65	43985.8	193.96	8532.	236992.	0.838063	770895.	15.172
70	35454.3	280.69	9952.	198600.	0.767334	533903.	12.138
75	25502.8	307.52	7843.	152373.	0.708087	335303.	9.457
80	17660.2	1000.00	17660.	107907.	0.410052	182910.	7.172
				75003.	0.000000	75003.	4.247

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 1 AREA= 5

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	132.88	13288.				
1	86712.4	69.37	6016.	90699.	.851034*	4948803.	49.488
5	80696.7	23.90	1929.	334818.	.936889**	4858104.	56.025
10	78768.1	10.13	796.	398662.	.982903	4523286.	56.051
15	77970.3	14.93	1164.	391846.	.987485	4124624.	52.364
20	76806.5	16.86	1295.	386942.	.984112	3732778.	47.874
25	75511.3	22.88	1728.	380794.	.980154	3345836.	43.562
30	73783.6	27.22	2007.	373237.	.974974	2965042.	39.266
35	71775.0	33.70	2419.	363897.	.969581	2591804.	35.127
40	69355.9	48.93	3394.	352827.	.958814	2227908.	31.040
45	65962.3	67.96	4483.	338296.	.941796	1875081.	27.036
50	61479.7	99.79	6135.	318605.	.916689	1536785.	23.298
55	55345.0	129.51	7168.	292062.	.886135	1218180.	19.814
60	48177.4	174.59	8411.	258806.	.849511	926118.	16.734
65	39766.0	212.46	8449.	219859.	.808286	667312.	13.851
70	31317.4	310.09	9711.	177709.	.744528	447453.	11.252
75	21606.2	415.15	8970.	132309.	.647018	269745.	8.613
80	12636.4	1000.00	12636.	85606.	.377118***	137436.	4.361
				51830.	.000000	51829.	4.102
FEMALES							
0	100000.0	120.99	12099.				
1	87901.1	68.94	6060.	91531.	.862031*	5190694.	51.907
5	81841.3	22.61	1850.	339485.	.938669**	5099163.	58.010
10	79991.1	10.72	858.	404581.	.983267	4759679.	58.157
15	79133.4	13.06	1033.	372811.	.988115	4355098.	54.445
20	78099.9	16.49	1288.	393083.	.985237	3957287.	50.008
25	76812.2	22.74	1747.	387280.	.980413	3564203.	45.636
30	75069.6	31.30	2349.	379694.	.973032	3176923.	41.360
35	72718.4	33.50	2436.	362455.	.967621	2797229.	37.244
40	70280.6	49.22	3459.	357492.	.958778	2427774.	33.387
45	66821.7	47.27	3158.	342756.	.951734	2070282.	29.457
50	63663.3	71.93	4579.	326212.	.940701	1727526.	25.853
55	59084.0	91.30	5394.	306868.	.918746	1401313.	22.011
60	53689.6	135.02	7249.	281934.	.887883	1094445.	18.524
65	46440.2	196.42	9122.	250324.	.836502	812511.	15.133
70	37318.6	282.58	10546.	209397.	.765193	562187.	12.106
75	26773.0	306.75	8213.	160229.	.707323	352790.	9.453
80	18560.4	1000.00	18560.	113334.	.411439***	192561.	7.192
				79227.	.000000	79227.	4.269

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 1

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	118.05	11805.				
1	88195.0	71.21	6281.	91736.	.863910*	5044107.	50.441
5	81914.3	30.65	2510.	340219.	.933651**	4952370.	56.153
10	79403.8	12.77	1014.	403295.	.978153	4612152.	56.305
15	78389.9	15.70	1231.	394484.	.985776	4208856.	53.006
20	77159.3	9.76	753.	388873.	.987247	3814372.	48.659
25	76406.3	14.97	1144.	383914.	.987649	3425499.	44.395
30	75282.7	19.89	1497.	379172.	.982588	3041585.	39.808
35	73765.5	26.21	1934.	372570.	.976978	2662413.	35.375
40	71831.8	37.88	2721.	363993.	.968032	2289842.	31.042
45	69111.1	56.17	3882.	352357.	.953155	1925849.	26.811
50	65229.3	98.42	6420.	335851.	.923317	1573492.	22.768
55	58809.4	126.16	7419.	310097.	.888428	1237641.	18.972
60	51390.0	194.56	9998.	275499.	.841942	927544.	15.774
65	41391.5	225.91	9351.	231954.	.791455	652046.	12.688
70	32040.9	405.67	12998.	183581.	.695654	420092.	10.149
75	19042.7	503.73	9592.	127709.	.557773	236511.	7.382
80	9450.3	1000.00	9450.	71233.	.345300***	108802.	5.714
				37569.	.000000	37569.	3.975
FEMALES							
0	100000.0	101.83	10183.				
1	89817.0	46.28	4157.	92872.	.887651*	5558102.	55.581
5	85659.9	20.61	1765.	350954.	.955074**	5465230.	60.849
10	83894.6	8.87	744.	423886.	.985198	5114276.	59.704
15	83150.1	9.52	792.	417612.	.990803	4690390.	55.908
20	82358.3	7.99	658.	413771.	.991238	4272778.	51.386
25	81700.0	12.46	1018.	410146.	.989780	3859007.	46.856
30	80681.6	17.49	1411.	405954.	.985040	3448862.	42.214
35	79270.8	20.77	1647.	392881.	.980884	3042908.	37.715
40	77624.0	29.83	2316.	392237.	.974743	2643027.	33.342
45	75308.1	25.76	1940.	382330.	.972170	2250790.	28.996
50	73367.9	83.34	6114.	371690.	.945824	1868460.	24.811
55	67253.5	107.51	7231.	351554.	.905099	1496770.	20.401
60	60022.8	171.17	10274.	318191.	.862464	1145216.	17.028
65	49748.4	228.44	11364.	274428.	.802875	827025.	13.779
70	38184.1	354.15	13594.	220331.	.716812	552597.	11.108
75	24790.3	325.87	8078.	157336.	.656946	332266.	8.656
80	16711.9	1000.00	16712.	103755.	.404833***	174330.	7.032
				70575.	.000000	70575.	4.223

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	101.71	10171.	92861.	.884176*	5397376.	53.974
1	89829.4	56.27	5055.	349208.	.950054**	5304495.	59.051
5	84774.4	18.23	1546.	420008.	.987155	4955288.	58.453
10	83228.7	7.36	612.	414613.	.990642	4535280.	54.492
15	82616.4	11.37	940.	410733.	.987147	4120668.	49.877
20	81676.7	14.35	1172.	405454.	.982437	3709935.	45.422
25	80504.8	20.82	1676.	398333.	.977930	3304481.	41.047
30	78828.4	23.34	1840.	389542.	.974324	2906148.	36.867
35	76988.3	28.06	2161.	379540.	.965556	2516606.	32.688
40	74827.7	41.01	3069.	366467.	.953815	2137067.	28.560
45	71759.2	51.58	3702.	349542.	.923772	1770599.	24.674
50	68057.5	102.21	6956.	322877.	.889154	1421058.	20.880
55	61101.2	120.46	7360.	287105.	.862241	1098161.	17.973
60	53740.8	157.42	8460.	247554.	.834361	811056.	15.092
65	45280.7	175.39	7942.	206549.	.783558	563502.	12.445
70	37339.0	266.23	9941.	161843.	.712042	356953.	9.560
75	27398.3	317.57	8701.	115239.	.409363***	195110.	7.121
80	18697.3	1000.00	18697.	79871.	.000000	79871.	4.272
FEMALES							
0	100000.0	99.59	9959.	93029.	.893774*	5712761.	57.128
1	90041.4	35.02	3154.	353858.	.964509**	5619732.	62.413
5	86887.7	15.71	1365.	431027.	.988611	5265874.	60.606
10	85523.0	7.00	599.	426118.	.992085	4834847.	56.533
15	84924.1	8.83	750.	422745.	.993332	4408730.	51.914
20	84173.9	10.51	885.	418658.	.987009	3985985.	47.354
25	83289.3	15.50	1291.	413219.	.982563	3567327.	42.831
30	81998.4	19.41	1591.	406014.	.980012	3154108.	38.465
35	80407.1	20.58	1655.	397898.	.975330	2748094.	34.177
40	78752.2	28.84	2272.	388082.	.973295	2350195.	29.843
45	76480.7	24.50	1874.	377718.	.963866	1962113.	25.655
50	74606.7	88.56	6607.	356516.	.905302	1584395.	21.237
55	67999.6	101.43	6897.	322754.	.872997	1227879.	18.057
60	61102.2	155.46	9499.	281764.	.827177	905125.	14.813
65	51603.3	193.38	9979.	233068.	.759137	623361.	12.080
70	41624.1	299.72	12476.	176231.	.703179	390293.	9.377
75	29148.3	292.67	8531.	124414.	.416867***	213362.	7.320
80	20617.3	1000.00	20617.	88948.	.000000	88948.	4.314

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	118.93	11893.	91675.	.851102*	4358077.	43.581
1	88106.7	105.27	9275.	333876.	.910625**	4266402.	48.423
5	78831.4	33.69	2656.	387517.	.975411	3932526.	49.885
10	76175.5	15.17	1156.	377988.	.979361	3545009.	46.537
15	75019.8	26.19	1965.	370187.	.968096	3167020.	42.216
20	73055.0	37.77	2759.	358377.	.961473	2796833.	38.284
25	70295.7	39.31	2764.	344570.	.958954	2438456.	34.689
30	67532.1	42.85	2894.	330420.	.951073	2093887.	31.006
35	64638.5	55.28	3573.	314267.	.935942	1763460.	27.282
40	61065.4	73.35	4479.	294129.	.906696	1449200.	23.732
45	56586.1	114.83	6498.	266685.	.904212	1155072.	20.413
50	50088.0	74.27	3720.	241140.	.889090	888386.	17.736
55	46368.0	150.49	6978.	214395.	.836198	647246.	13.959
60	39390.1	179.47	7069.	179277.	.759720	432851.	10.989
65	32320.7	314.39	10161.	136200.	.652275	253574.	7.846
70	22159.4	462.73	10254.	85163.	.363381	117374.	5.297
75	11905.6	960.27	11433.	30946.	.039274***	32211.	2.706
80	473.0	1000.00	473.	1265.	.000000	1265.	2.675
FEMALES							
0	100000.0	122.23	12223.	91444.	.848579*	4405864.	44.059
1	87776.9	104.03	9131.	332846.	.910771**	4314420.	49.152
5	78645.9	34.58	2720.	386431.	.972912	3981575.	50.627
10	75926.3	19.33	1468.	375963.	.977242	3555144.	47.350
15	74458.8	26.26	1955.	367407.	.973020	3219181.	43.234
20	72503.8	27.72	2010.	357494.	.969798	2851775.	39.333
25	70493.7	32.75	2309.	346697.	.962772	2494281.	35.383
30	68185.0	41.86	2854.	333790.	.955051	2147584.	31.496
35	65331.0	48.18	3147.	318766.	.938605	1813794.	27.763
40	62183.6	75.28	4681.	292215.	.919008	1495008.	24.094
45	57502.3	87.17	5012.	274981.	.918644	1195793.	20.796
50	52490.0	74.99	3936.	252610.	.898595	920812.	17.543
55	48553.9	129.96	6310.	226944.	.848361	668203.	13.762
60	42243.7	176.55	7458.	192573.	.716036	441208.	10.444
65	34785.4	414.40	14415.	137889.	.539292	248636.	7.148
70	20370.2	539.78	10995.	74362.	.389637	110747.	5.437
75	9374.8	763.73	7160.	28974.	.203655***	36384.	3.881
80	2215.0	1000.00	2215.	7410.	.000000	7410.	3.345

*P(BIRTH), **P(0-4), ***T(80)/T(75)

135

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	107.76	10776.	92457.	.871941.	5021265.	50.213
1	89223.7	74.98	6690.	343514.	.935158..	4928808.	55.241
5	82533.4	24.07	1986.	407702.	.982815.	4585294.	55.557
10	80547.2	10.14	816.	400695.	.986771.	4177593.	51.865
15	79730.9	16.31	1301.	395403.	.981141.	3776897.	47.371
20	78430.2	21.45	1682.	387946.	.975483.	3381495.	43.115
25	76748.1	27.65	2122.	378434.	.970866.	2993549.	39.005
30	74625.7	30.66	2288.	367409.	.965782.	2615115.	35.043
35	72338.0	37.89	2741.	354837.	.954550.	2247706.	31.072
40	69596.9	53.30	3710.	338710.	.937166.	1892869.	27.198
45	65887.1	72.90	4803.	317427.	.917486.	1554157.	23.588
50	61083.9	92.88	5674.	291235.	.890235.	1236731.	20.246
55	55410.2	128.38	7113.	259268.	.855046.	945496.	17.064
60	48296.9	163.97	7919.	221686.	.818915.	686228.	14.209
65	40377.5	201.55	8138.	181542.	.752908.	464542.	11.505
70	32239.3	304.13	9805.	136684.	.659117.	283000.	8.778
75	22434.4	393.70	8832.	90091.	.384271... .000000	146316.	6.522
80	13601.9	1000.00	13602.	56225.		56225.	4.134

FEMALES							
0	100000.0	106.05	10605.	92576.	.878613.	5267440.	52.674
1	89394.8	60.68	5424.	346730.	.944958..	5174843.	57.888
5	83970.3	22.51	1890.	415126.	.983207.	4828133.	57.498
10	82080.2	10.94	898.	408155.	.987452.	4413007.	53.765
15	81181.9	14.17	1150.	403034.	.984952.	4004852.	49.332
20	80031.5	15.94	1276.	396969.	.981246.	3601818.	45.005
25	78755.9	21.61	1702.	389524.	.975579.	3204849.	40.693
30	77053.7	27.29	2103.	380012.	.971431.	2815325.	36.537
35	74951.0	29.89	2240.	369155.	.963358.	2435314.	32.492
40	72711.0	43.61	3171.	355628.	.957706.	2066159.	28.416
45	69540.3	40.92	2846.	340587.	.937778.	1710531.	24.598
50	66694.7	84.43	5631.	319375.	.904527.	1369243.	20.541
55	61063.4	107.53	6566.	288901.	.867570.	1050548.	17.204
60	54497.2	160.33	8737.	250642.	.810276.	761647.	13.976
65	45759.7	224.73	10284.	203089.	.725310.	511004.	11.167
70	35476.1	339.13	12031.	147303.	.656917.	307915.	8.680
75	23445.2	349.06	8184.	96786.	.397520... .000000	160612.	6.851
80	15261.2	1000.00	15261.	63847.		63847.	4.184

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 2 AREA= 5

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	109.82	10982.	92313.	.870723.	5056942.	50.569
1	89017.9	73.15	6511.	343049.	.935426..	4964630.	55.771
5	82506.5	25.62	2114.	407248.	.981718.	4621581.	56.015
10	80392.9	10.75	865.	399803.	.986676.	4214332.	52.422
15	79528.3	15.92	1266.	394476.	.983669.	3814529.	47.964
20	78262.2	16.75	1311.	388034.	.980130.	3420053.	43.700
25	76951.4	23.05	1773.	380323.	.974930.	3032019.	39.402
30	75178.0	27.14	2041.	370789.	.969369.	2651696.	35.272
35	73137.5	34.22	2503.	359431.	.958756.	2280907.	31.187
40	70634.9	48.52	3427.	344606.	.942022.	1921477.	27.203
45	67207.7	67.92	4565.	324627.	.919679.	1576870.	23.463
50	62643.1	93.63	5865.	298553.	.890659.	1252243.	19.990
55	56778.0	126.68	7192.	265909.	.852941.	953691.	16.797
60	49585.5	170.40	8449.	226804.	.813280.	687782.	13.871
65	41136.3	206.39	8490.	184456.	.740936.	460928.	11.206
70	32646.0	325.43	10624.	136670.	.637558.	276522.	8.470
75	22021.9	417.31	9190.	87135.	.376952... .000000	139852.	6.351
80	12832.0	1000.00	12832.	52718.		52718.	4.108

FEMALES							
0	100000.0	103.83	10383.	92732.	.882344.	5366305.	53.663
1	89616.9	55.95	5014.	348440.	.948359..	5273573.	58.846
5	84603.0	21.87	1850.	418389.	.983868.	4925134.	58.215
10	82752.6	10.24	849.	411400.	.988624.	4506744.	54.460
15	81903.3	12.50	1024.	406957.	.987141.	4095105.	49.999
20	80879.5	13.22	1069.	401724.	.984028.	3688148.	45.601
25	79810.1	18.76	1497.	395307.	.978427.	3286424.	41.178
30	78312.9	24.44	1914.	386780.	.974109.	2891116.	36.917
35	76399.0	27.38	2092.	376766.	.966508.	2504337.	32.780
40	74307.3	39.78	2956.	364147.	.941847.	2127571.	28.632
45	71351.6	36.46	2602.	350254.	.940382.	1763424.	24.715
50	68749.9	81.65	5751.	329372.	.905218.	1413170.	20.555
55	62999.0	106.93	6737.	298153.	.866922.	1083798.	17.203
60	55262.4	162.36	9135.	258476.	.809278.	785644.	13.964
65	47127.9	224.59	10584.	209179.	.724329.	527169.	11.186
70	36543.6	341.55	12482.	151514.	.658843.	317990.	8.702
75	24062.0	340.56	8194.	99824.	.400370... .000000	166476.	6.919
80	15867.6	1000.00	15868.	66652.		66652.	4.201

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 1

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	119.12	11912.				
1	88088.4	66.19	5831.	91662.	.864708*	5167315.	51.671
5	82257.6	26.83	2207.	340692.	.938513**	5075654.	57.621
10	80050.2	11.05	684.	405770.	.98.951	4734962.	57.562
15	79165.7	13.00	1077.	398040.	.987682	4329192.	54.081
20	78089.0	9.13	713.	393137.	.988619	3931152.	49.657
25	77175.9	14.02	1084.	388662.	.988438	3538015.	45.307
30	76291.5	18.04	1376.	384169.	.983288	3149353.	40.202
35	74915.5	24.10	1806.	378017.	.978958	2765185.	36.245
40	73109.7	35.94	2628.	370063.	.970050	2387167.	31.865
45	70482.2	51.96	3662.	358780.	.956195	2017104.	27.590
50	66819.7	91.85	6138.	343255.	.928624	1458124.	21.525
55	60682.2	114.70	6960.	318755.	.897274	1314870.	19.678
60	53722.0	179.02	9617.	286010.	.855099	996115.	16.415
65	44104.9	215.07	9485.	244567.	.804731	710104.	13.218
70	34619.5	379.36	13133.	196811.	.712687	465537.	10.555
75	21486.3	469.45	10687.	140265.	.586141	268726.	7.762
80	11399.6	1000.00	11400.	82215.	.360005***	128462.	5.979
				46247.	.000000	46247.	4.057

FEMALES							
0	100000.0	103.81	10381.				
1	89619.5	48.72	4366.	92734.	.884958*	5569842.	55.698
5	85253.2	19.74	1683.	349745.	.953849**	5477109.	61.115
10	83570.1	8.55	715.	422058.	.985796	5127363.	60.143
15	82855.3	9.17	760.	416064.	.991138	4705305.	56.304
20	82095.2	8.60	706.	412376.	.991109	4289241.	51.768
25	81388.8	13.28	1081.	408710.	.989068	3876865.	47.224
30	80308.0	18.44	1481.	404242.	.984156	3468155.	42.612
35	78826.8	22.18	1748.	397837.	.979706	3063913.	38.152
40	77078.5	31.56	2433.	389763.	.973183	2666076.	33.822
45	74646.0	27.73	2070.	379311.	.970327	2276313.	29.532
50	72576.4	77.44	5620.	368056.	.947767	1897002.	25.413
55	66956.1	101.22	6777.	348831.	.911150	1528946.	21.067
60	60178.9	154.99	9327.	317837.	.873327	1180115.	17.625
65	50851.6	217.98	11085.	277576.	.816159	862277.	14.329
70	39767.0	322.98	12844.	226546.	.735940	584701.	11.498
75	26922.9	318.37	8571.	166725.	.678878	358155.	9.006
80	18351.4	1000.00	18351.	113186.	.408736***	191430.	7.110
				78244.	.000000	78244.	4.264

*P(BIRTH), **P(D-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 2

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	113.51	11351.				
1	88649.3	53.34	4728.	92054.	.874391*	5309764.	53.098
5	83921.1	18.12	1521.	345141.	.951071**	5217710.	58.858
10	82400.4	7.31	602.	415804.	.987237	4872569.	58.061
15	81798.4	11.25	920.	410497.	.990728	4456765.	54.087
20	80878.0	15.25	1234.	406691.	.986759	4046268.	49.466
25	79644.4	21.96	1749.	401306.	.981420	3639577.	45.001
30	77895.5	25.09	1954.	393850.	.976493	3238271.	40.659
35	75941.1	29.66	2253.	384591.	.972652	2844421.	36.516
40	73688.4	43.18	3182.	374074.	.963681	2459830.	32.391
45	70506.7	54.27	3827.	360488.	.951396	2085756.	28.305
50	66679.9	105.83	7057.	342966.	.920667	1725268.	24.470
55	59623.2	123.06	7337.	315758.	.886038	1382302.	20.730
60	52286.2	161.79	8459.	279774.	.858847	1066544.	17.888
65	43826.9	177.69	7788.	240283.	.830960	786770.	15.047
70	36039.3	257.18	9269.	199666.	.786437	546487.	12.469
75	26770.6	321.00	8593.	157025.	.715620	346822.	9.623
80	18177.4	1000.00	18177.	112370.	.407947***	189797.	7.090
				77427.	.000000	77427.	4.260

FEMALES							
0	100000.0	112.89	11289.				
1	88711.1	49.23	4367.	92098.	.876415*	5543767.	55.438
5	84343.8	17.48	1474.	346110.	.953963**	5451670.	61.454
10	82869.7	7.79	646.	418034.	.987323	5105560.	60.533
15	82224.0	9.88	813.	412734.	.991167	4687526.	56.565
20	81411.5	12.44	1013.	409089.	.988846	4274792.	51.990
25	80398.9	18.13	1458.	404526.	.984732	3865703.	47.484
30	78940.9	23.54	1858.	398349.	.979187	3461177.	43.050
35	77082.5	24.09	1857.	390058.	.976186	3062828.	38.799
40	75225.4	34.12	2567.	380770.	.970954	2672769.	34.674
45	72658.6	29.70	2158.	369710.	.968051	2292000.	30.468
50	70500.7	79.78	5624.	357898.	.945640	1922290.	26.456
55	64876.4	91.83	5558.	338443.	.914447	1564392.	22.190
60	58918.8	136.93	8068.	309468.	.886705	1225949.	18.897
65	50851.0	178.78	9091.	274425.	.843685	916461.	15.555
70	41760.1	266.91	11146.	231528.	.781463	642037.	12.624
75	30613.9	270.13	8270.	180935.	.731728	410509.	9.830
80	22344.2	1000.00	22344.	132395.	.423300***	229574.	7.499
				97179.	.000000	97179.	4.349

*P(BIRTH), **P(D-4), ***T(80)/T(75)

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	137.54	13754.	90372.	.832819*	4199589.	41.99
1	86245.7	109.83	9473.	326037.	.906016**	4109217.	47.64
5	74773.0	34.34	2636.	372274.	.974701	3783180.	49.22
10	74136.5	15.94	1181.	367729.	.978325	3405906.	45.94
15	72955.1	27.51	2007.	359758.	.967637	3038177.	41.64
20	70948.3	37.36	2650.	348116.	.962189	2678419.	37.75
25	68298.0	38.28	2615.	334953.	.959408	2330303.	34.12
30	65683.3	42.99	2824.	321357.	.951576	1995350.	30.37
35	62859.4	54.10	3401.	305795.	.936786	1673994.	26.63
40	59458.7	72.85	4332.	286465.	.906384	1368198.	23.01
45	55127.1	114.01	6396.	259447.	.872722	1081734.	19.62
50	48731.6	87.70	4274.	232974.	.822043	822087.	16.87
55	44457.9	172.09	7651.	203163.	.815338	589113.	13.25
60	36807.4	199.85	7356.	165647.	.734099	385950.	10.48
65	29451.3	348.44	10262.	121601.	.591767	220303.	7.48
70	19189.1	500.00	9594.	71960.	.351670	98702.	5.14
75	9594.7	945.00	9067.	25306.	.053723***	26743.	2.78
80	527.7	1000.00	528.	1437.	.000000	1437.	2.72

FEMALES							
0	100000.0	125.95	12595.	91184.	.845611*	4364241.	43.64
1	87405.1	102.96	8999.	331622.	.911743**	4273057.	48.88
5	78405.8	33.36	2616.	385490.	.973736	3941436.	50.27
10	75790.2	18.92	1434.	375365.	.977822	3555946.	46.91
15	74355.9	25.50	1896.	367040.	.972379	3180580.	42.77
20	72460.2	29.80	2159.	356902.	.967893	2813540.	38.82
25	70360.7	34.48	2424.	345443.	.959624	2456638.	34.94
30	67876.6	46.48	3155.	331496.	.951053	2111194.	31.10
35	64721.7	51.53	3335.	315270.	.933850	1779698.	27.49
40	61386.3	81.56	5007.	294415.	.910851	1464429.	23.85
45	56379.6	97.41	5492.	268168.	.872541	1170014.	20.75
50	50887.6	76.43	3899.	244714.	.899861	901846.	17.22
55	46998.1	125.81	5913.	220209.	.846763	657132.	13.98
60	41085.4	184.62	7585.	186464.	.727654	436923.	10.63
65	33560.4	379.94	12728.	135682.	.562109	250459.	7.47
70	20772.2	531.35	11037.	76268.	.398081	114777.	5.52
75	9734.9	752.50	7325.	30361.	.211597***	38509.	3.95
80	2409.4	1000.00	2409.	8148.	.000000	8148.	3.38

*P(BIRTH), **P(0-4), ***T(80)/T(75)

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	121.57	12157.	91490.	.859673*	4915780.	49.158
1	87843.3	74.15	6514.	338346.	.934614**	4824290.	54.919
5	81329.7	24.18	1967.	401731.	.982673	4485944.	55.158
10	79362.8	10.30	817.	394770.	.986600	4084213.	51.463
15	78545.4	16.53	1299.	389480.	.980831	3689442.	46.972
20	77246.8	21.85	1688.	382014.	.975175	3299962.	42.720
25	75559.0	27.87	2105.	372531.	.970283	2917947.	38.618
30	73453.5	31.62	2323.	361460.	.965085	2545416.	34.653
35	71130.7	38.32	2725.	348840.	.953949	2183956.	30.703
40	68405.3	54.09	3700.	332776.	.936064	1835116.	26.827
45	64765.0	74.34	4810.	311492.	.913731	1502340.	23.218
50	59899.7	99.15	5939.	284627.	.884083	1190841.	19.882
55	53955.9	134.52	7258.	251674.	.848373	906214.	16.795
60	46677.5	171.39	8003.	213479.	.811660	654581.	14.017
65	38674.1	208.80	8079.	173272.	.750136	441102.	11.400
70	30614.8	301.77	9239.	129978.	.656908	267829.	8.748
75	21376.3	402.28	8599.	85383.	.380614***	137852.	6.449
80	12777.1	1000.00	12777.	52468.	.000000	52468.	4.106

FEMALES							
0	100000.0	116.34	11634.	91854.	.866220*	5144802.	51.448
1	88366.2	69.09	6106.	341254.	.938564**	5052946.	57.182
5	82260.6	23.35	1921.	406501.	.982549	4711693.	57.278
10	81339.9	11.41	917.	399407.	.986913	4305191.	53.587
15	79423.1	14.78	1174.	394180.	.983586	3905784.	49.177
20	78249.1	18.07	1414.	387710.	.978928	3511604.	44.877
25	76835.1	24.13	1854.	379541.	.972079	3123893.	40.657
30	74981.2	31.81	2385.	368933.	.967320	2744353.	36.601
35	72596.2	33.58	2438.	356866.	.958569	2375409.	32.721
40	70158.3	49.55	3476.	342100.	.951346	2018523.	28.771
45	66881.8	47.71	3181.	325456.	.937256	1676423.	25.141
50	63500.4	78.53	4987.	305035.	.911637	1350267.	21.275
55	58513.7	99.03	5785.	278082.	.878164	1045932.	17.875
60	52719.1	147.15	7758.	244202.	.824222	767850.	14.565
65	44961.5	209.35	9412.	201276.	.746493	523649.	11.647
70	35549.0	302.36	10997.	150251.	.682824	322372.	9.068
75	24551.5	328.49	8065.	102595.	.403936***	172121.	7.011
80	16486.6	1000.00	16487.	69526.	.000000	69526.	4.217

*P(BIRTH), **P(0-4), ***T(80)/T(75)

LIFE TABLE FOR YEAR= 3 AREA= 5

AGE(X)	I(X)	1000 Q(X)	D(X)	L(X)	P(X)	T(X)	E(X)
MALES							
0	100000.0	119.82	11982.	91613.	.862289*	5011762.	50.118
1	88018.3	71.25	6271.	339531.	.936295**	4920149.	55.899
5	81747.4	24.75	2023.	403678.	.982314	4580618.	56.034
10	79724.0	10.44	832.	396539.	.987082	4176939.	52.392
15	78891.6	15.42	1217.	391417.	.983891	3780400.	47.919
20	77675.0	16.81	1306.	385111.	.980141	3388983.	43.630
25	76369.5	22.96	1754.	377463.	.974950	3003872.	39.333
30	74615.8	27.19	2028.	368008.	.969473	2626409.	35.199
35	72587.4	33.96	2465.	356774.	.958783	2258401.	31.113
40	70122.2	48.73	3417.	342069.	.941905	1901627.	27.119
45	66755.3	67.94	4532.	322196.	.918187	1559558.	23.380
50	62173.2	96.70	6012.	295836.	.888382	1237362.	19.902
55	56161.3	128.14	7196.	262816.	.851174	941526.	16.765
60	48964.9	172.56	8449.	223702.	.810719	678710.	13.861
65	40515.8	209.50	8488.	181359.	.742821	455009.	11.230
70	32027.9	317.50	10169.	134717.	.642423	273650.	8.544
75	21859.0	416.30	9100.	86545.	.377067***	138932.	6.356
80	12759.2	1000.00	12759.	52387.	.000000	52387.	4.106
FEMALES							
0	100000.0	111.33	11133.	92207.	.873117*	5283327.	52.833
1	88867.3	62.55	5559.	344351.	.943535**	5191120.	58.414
5	83308.3	22.25	1853.	411948.	.983563	4846769.	58.179
10	81455.0	10.50	855.	405138.	.988367	4434860.	54.446
15	80600.1	12.78	1030.	400425.	.986180	4029723.	49.996
20	79569.8	14.87	1183.	394891.	.982188	3629298.	45.611
25	78386.7	20.80	1630.	387858.	.975714	3234406.	41.262
30	76756.4	27.85	2138.	378438.	.970844	2846549.	37.064
35	74618.8	30.50	2276.	367405.	.962581	2468111.	33.076
40	72343.1	44.56	3224.	353657.	.956789	2100706.	29.038
45	69119.6	41.80	2889.	338375.	.940596	1747049.	25.276
50	66230.5	77.78	5151.	318224.	.912005	1408674.	21.269
55	61079.3	99.07	6051.	290268.	.877521	1090400.	17.852
60	55027.9	148.46	8169.	254716.	.822971	800132.	14.540
65	46858.6	210.58	9868.	209624.	.744892	545416.	11.640
70	36991.0	311.51	11523.	156147.	.683410	335791.	9.078
75	25468.0	323.97	8251.	106713.	.405976***	179644.	7.054
80	17217.2	1000.00	17217.	72931.	.000000	72931.	4.236

*P(BIRTH), **P(0-4), ***T(80)/T(75)