#### Section XVI.-South African Life Table No. 2.

185. Previous South African Life Tables .- The only Life Tables which are known to have been prepared and published in relation to South African conditions are those referred to hereunder.

Mr. C. B. Elliott made an investigation of the mortality experience of the South African Mutual Life Assurance Society for the period 1845 to 1879, but the numbers under observation were small, and Mr. Elliott considered that too much reliance should not be placed upon the results. Mr. Charles Gordon constructed a Life Table for the same Society based on fifty year's experience (1845 to 1895), graduating it by a combination of Woolhouse's and Ackland's methods. A Life Table for the European population of Johannesburg was constructed by the late Dr. G. D. Maynard, based on the 1910 Municipal Census, and two years' records of deaths. Mr. C. W. Kops, lecturer at the University of the Witwatersrand constructed a Life Table for European males based on the 1918 and 1921 Population Censuses and the deaths during the three years 1919-1921. This table was published in the Transactions of the Royal Society of South Africa, Vol. XII, Part 4. South African Life Table No. 1 for European males and females was constructed by the Census Office from the Population Census of 1921 and the deaths during the three years 1920-1922, and published in the Final Report of that Census.

Portions of these Tables are shown below compared with S.A. Life Table No. 2. The fact that is immediately evident is the continuous improvement. The South African Mutual Life Table. which may be regarded as representing healthy males for a fifty year period from 1845 onwards, is not as favourable as Dr. Maynard's for Johannesburg for all males for the complete expectation of life, while Mr. Kops' table and the S.A. Life Tables No. 1 and 2 are each progressively somewhat more favourable. This accords generally with the experience of other countries.

Mr. George King made an investigation on behalf of the Southern Life Association of Africa some years ago on their mortality experience between 1891 and 1912, but a mortality table was not constructed.

Mr. D. Spence Fraser, F.F.A., A.I.A., Actuarial Adviser to the Union Government, has been kind enough to furnish the Census Office with the mortality table he constructed from the mortality experience of pensioners of the South African Railways and Harbours for the years 1911-1923. The experience refers to 1,519 pensions granted on attaining the age limit for pension purposes and to 827 pensions granted on account of retrenchment. Pensions granted on account of ill health or accident were not

The following information will be of interest if read in connection with the comparative tables given elsewhere :---

Age.	50	60	70
êr.	21.79	14.66	9.61
$10\tilde{p_x}$	·8479	$\cdot 6571$	$\cdot 4322$

It will be seen that the expectation of life is slightly lower at the ages of 50 and 60, but slightly higher at the age of 70 than South African Table No. 1, and that the probability of living 10 years is higher at the age of 50, lower at the age of 60 and practically identical at the age of 70.

It must be remembered that the period covered is on the whole earlier than South African Table No. 1. Moreover, Mr. Spence Fraser states that the mortality tended to be lower towards the end than at the beginning of the period, and that further investigations since 1923 tended to show a rather lower mortality.

186. South African Life Table No. 2.—The Life Table published in this section has been constructed throughout by the same methods as those employed in the case of Life Table No. 1 except in the case of very old ages as mentioned below.

As to the period of the table, there were two alternatives. Either it might be based as was Table No. 1 on a three years mortality experience centred on the Population Census of 1926, or on a five years mortality experience based on the mean between the two Censuses of 1921 and 1926. It must be admitted, that whereas a Life Table based on a ten years experience is somewhat out of date by the time it is published, the same criticism is not valid where Life Tables can be constructed for intervals of five years between two Population Censuses. A series of tables constructed as Table No. 1 would utilize three years mortality and omit two in every five years, while the latter would utilize the mortality experience of every year and would represent a period whose midpoint would be only thirty months earlier than the former. The fact, however, that the change in the Population Census questionaire with regard to age had effected a considerable decrease in the number of misstatements of age in 1926 made it seem advisable to avoid utilizing the figures for 1921 ; moreover a direct comparison with Life Table No. 1 is obtained more readily by utilizing a similar period and method; so that on the whole it was thought wiser to construct a table centred on 1926 though the question of the advisability of in future constructing tables covering a five years period between two Censuses is one that will no doubt receive due consideration in the future.

With certain differences the methods employed by Mr. George King in preparing Life Tables No. 8 for England and Wales were followed in constructing South African Life Table No. 1. The increasing interest shown in his method of osculatory interpolation. the closeness with which it follows the given data and its general simplicity has justified that choice; so the same method was chosen in constructing Life Table No. 2.

It was assumed that at the date of the Census, the 4th May, 1926, the days of births of persons of each year of age from one year upwards were evenly distributed through that year. With that assumption a calculation from vital and migration statistics was made and adjusted figures for the population living on the 30th June 1926 were obtained. The assumption of a uniform geometrical increase in each age group assumed by Mr. King, was not thought to be suitable for South Africa where there is known to be an uneven distribution of population, and for this reason his method was not followed in obtaining the figures for the mean population, although in this short period it did not involve any great discrepancy.

There is a tendency in every Census for some persons to make incorrect statements of age, and as far as this tendency is confined to an inclination for round numbers (such as figures terminating in 0 and to a less degree in 8, 2 and 5), these inaccuracies can be largely smoothed out by adopting a satisfactory quinquennial grouping and then redistributing the figures in each group in due proportion. The same tendency has been observed in the case of the ages rendered in returns of death. It would seem therefore that the same psychological cause operated both where persons are asked to give their own ages and where persons are required to declare the ages of deceased people. It would appear that these misstatements were on the whole due to ignorance of the exact year of age. A person might say his age was about 50 or about 60 and return it as 50 or 60, or he might say it was between 50 and 60 and return it as 55, or again he might say he was getting on to 60 or was a bit over 60 and might return it as 58 or 62.

Where, however, there are deliberate misstatements of age all tending to be understatements in one period of life and overstatements in another no mathematical formula however ingenious will remove the error, unless, of course, the degree of misstatement is known. All that can be hoped is that greater accuracy will result from the spread of the knowledge that the information is not asked for out of idle curiosity but is utilized for scientific calculations of national interest. It is not known to what extent

deliberate misstatements occur that are likely to give some bias to the calculations but arrangements are being made to test this in the next Population Census.

From a careful examination of the Population and mortality returns it appeared best to group ages into quinquennial groups on the basis either of those whose final digit ended in 4-8 and 9-3 or else in 2-6 and 7-1. There seemed to be little to chose between the two; at certain periods of life one appeared to be slightly better than the other. As, however, the grouping of 4-8, 9-3 was utilized in the construction of Life Table No. 1, it was decided to retain it for Life Table No. 2.

The mean population and the deaths for three years 1925 to 1927 were arranged in quinquennial groups for the age periods 4 to 8, 9 to 13, 14 to 18, etc., as far as 99 to 103. The value for  $m_x$ , the central death rate (i.e. deaths divided by population) for the central age of each group from 11 years to 96 was obtained rom the contrar age of each group from 11 years to 50 was obtained rom the formula  $u_{x+2} \cdot 2w_x - \cdot 008 \triangle^2 w_{x-5}$  where  $u_{x+2}$  is the population or deaths at the age (x + 2), and  $w_x$  is the sum of five values of the population or deaths for ages x to (x + 4). The rate of mortality, or the probability of dying in the course

of a year, i.e.  $q_x$ , was calculated by the formula  $q_x = \frac{2m_x}{2+m_x}$  for

each sex for the ages 11, 16, 21, up to 96. The intervening values of the rate of mortality were obtained from functions of Log  $(q_x + \cdot 1)$  by Osculatory Interpolation by means of curves of the third order, which had the same first differential coefficient at their points of contact at the ages 16, 21, 26, etc.

The formulae were :---

$$\delta u_1 = \cdot 2 \bigtriangleup u_\circ + \cdot 12 \bigtriangleup^2 u_\circ - \cdot 016 \bigtriangleup^3 u_\circ$$
  
$$\delta^2 u_1 = \cdot 04 \bigtriangleup^2 u_\circ - \cdot 016 \bigtriangleup^3 u_\circ$$
  
$$\delta^3 u_* = \cdot 024 \bigtriangleup^3 u$$

where the symbol  $\delta$  is used for annual and  $\varDelta$  for quinquennial differences

This gave a complete table for  $q_{\pi}$  from 16 to 91.

In preparing Life Table No. 1 various methods were tried for completing the table at the higher ages by means of a fourth constant difference between five values of functions of  $p_x$  and  $q_x$ without success owing to the fact that  $p_x$  tended to increase after a certain age. Finally the curve for  $p_x$  was drawn and graphically completed and the functions for the higher ages read off to three places of decimals. This, however, involved an assumption that  $q_x$  would approximate to unity before the age of 110 for which here is no proof. The same difficulty was experienced in constructing Life Table No. 2. After a considerable amount of examination of the different functions it was discovered that

 $\frac{\log p_{s1}}{\log p_{76}}$  was approximately equal to  $\sqrt[3]{\frac{\log p_{91}}{\log p_{76}}}$ 

It was assumed that  $\frac{\log p_{x+1}}{\log p_x} = \left(\frac{\log p_{91}}{\log p_{76}}\right)^{\frac{1}{15}}$  for each value of x from 91 upwards and the table for the higher ages was completed in this manner.

It is extremely difficult in a small community such as South Africa to be certain whether the few persons that attain great age in the first place give their ages correctly, and secondly whether it is merely a fortuitous sample not representing a normal distribution. The end of the table can therefore only be regarded as a reasonable approximation. Arrangements have, however, been made with the Old Age Pensions Office to secure full details of Old Age Pensioners and it is hoped when information has accumulated for a few years to make a detailed examination of the returns and possibly to construct a Life Table for persons over 65. As Old Âge Pensioners are approximately one third of the population over 65 it may be possible to fit their probability curve to the next South African Life Table. At any rate it will throw considerable light on the subject.

156

#### 157

An examination of the ages of young children was made, comparing the statistics derived from records of births and deaths with the 1926 Census figures brought down to the end of June 1926. The following table gives the results :-

NUMBER OF CHILDREN LIVING ON THE 30TH JUNE, 1926.

Age.		MALE.		FEMALE.			
	Births Minus Deaths.	Adjusted Census.	Differ- ences.	Births Minus Deaths.	Adjusted Census.	Differ- ences.	
Under one year -2 -3 -4 -5	21,757 19,993 19,814 19,178 19,757	21,067 20,319 19,725 20,035 20,472	690 - 326 89 - 857 - 715	20,548 19,070 18,851 18,606 19,014	20,062 19,171 19,079 19,493 19,707	$ \begin{array}{r}     486 \\     - 101 \\     228 \\     - 887 \\     - 693 \end{array} $	

A very marked improvement took place in the declaration of ages of young children in the 1926 Census as compared with the 1921 Census, the sum of the differences in the above table being less than a quarter of the sum of the differences in a similar table prepared for the 1921 Census. This is due to the great improvement in the statement of ages that occurred on account of date of birth being asked for in addition to age. The net difference amounts to about one per cent. and is difficult to explain. It is not due to immigration as shown by the migration returns. It is possible that some births were not registered or there may be a slight tendency to understate ages of children about 5. This matter will be investigated in the light of the 1931 Census.

The number taken into account at the age exactly 0 was the sum of the births from the second half of 1924 to the end of the first half of 1927; the number taken into account at the age exactly 1 the sum of the births from the second half of 1923 to the end of the first half of 1926 less the sum of the deaths under one year of age in the years 1924 to 1926; the number taken into account at the age exactly 2 the sums of the births from the second half of 1922 to the first half of 1925 less the sum of the deaths under one year of age in the years 1923 to 1925 and the sum of the deaths age 1 and under 2 in the years 1924 to 1926, and so on for the numbers aged exactly 3, 4, and 5 years.

The rates of mortality derived from the records of births and deaths were obtained by dividing the deaths in each year of age 0 to 1, 1 to 2, etc., up to 5 to 6 in the years 1925 to 1927 by the numbers living as found above.

The following table gives the results :----

RATES OF MORTALITY OF CHILDREN.

AGE.	ada ada	MALE.		FEMALE.			
AGE.	Numbers Living.	Deaths.	Rate of Mortality.	Numbers Living.	Deaths.	Rate of Mortality.	
)	66,848	4,976	·0744375	63,240	3.969	.0627600	
L	61,649	1,153	·0187027	58,593	1.077	.0183810	
2	59,101	435	·0073603	56,625	436	.0076998	
3	58,873	277	·0047050	56,542	234	.0041385	
	58,623	203	·0034628	56,481	194	·0034348	
	57,886	169	·0029195	55,333	131	·0023675	

The column  $q_x$  had then been completed for age 0 to 5 for 11 and for 16 onwards, and the remainder was constructed by interpolation by means of a Lagrange fourth difference formula, the values for the five years 4, 5, 11, 16 and 17 being utilized. While this method produced satisfactory results for the males it did not for the females, owing to the fact that the rates from 3 to 5 are not in the same even progression as in the case of males. It was therefore decided to use a Lagrange third difference formula utilizing the four years 5, 11, 16 and 17 for the females which produced a curve closely fitting the given data.

The Lagrange formula is of the following form :---

	(x-b)(x-c) $(x-n)$ , $(x-a)(x-c)$	$\dots (x-n)$
$q_x = q_a$	$\overline{(a-b)(a-c)}$ $(a-n)$ + $q_b$ $\overline{(b-a)(b-c)}$	$\dots (b-n)$
1	(x-a)(x-b)(x-c)	
$+ \cdot \cdot \cdot$	$+ q_n \frac{(n-a)(n-b)(n-c)}{(n-a)(n-b)(n-c)}$	

Where four orders of differences are taken  $q_a = q_4$ ,  $q_b = q_5$ ,  $q_c = q_{11}$ ,  $q_d = q_{16}$  and  $q_n = q_{17}$ , and where three orders of differences are taken  $q_a = q_5$ ,  $q_b^4 = q_{11}$ ,  $q_c = q_{16}$  and  $q_n = q_{17}$ .

The closeness with which the life tables are in accord with the data can be seen in the following statement comparing the expected with the actual deaths for different age groups. As the calculations for the ages 0 to 5 were made direct from the vital statistics there are no differences in their cases.

COMPARISON OF ACTUAL WITH EXPECTED DEATHS.

alassina o	la onte mi	MALE.		FEMALE.			
AGE GROUP.	Expected Less Actu	l Deaths al Deaths.	Accumu- lated	Expected Less Actu	l Deaths al Deaths.	Accumu- lated	
	Positive.	Negative.	Deviation.	Positive.	Negative.	Deviation.	
0-3		_	+ 8	-		- 7	
9-13	_	2	+ 6	11	-	- 7	
14-18	8	-	+14	-	1	- 8	
19-23	_	15	- 1		2	-10	
24-28	2		+ 1	2		- 8	
29-33	10	-	+11	-	1	- 9	
34-38		11	1 11- 75	-	2	-11	
39-43	8	-	+ 8		2	-13	
44-48	-	8	-	2		-11	
49-53	7	-	+ 7	2	-	- 9	
54-58	-	4	+ 3	-	8	-17	
59-63	-		+ 3	11	120 - <del></del> 1910	- 6	
64-68	a la transferancia	3		100-000	15	-21	
69-73	5	And There is	+ 5 •	13		- 8	
74-78	-	10	- 5		16	-24	
79-83	8	-	.+ 3	13	_	-11	
84-88		7	- 4	_	6	-17	
89-93	3	3 7 5 9	- 1	4	- · · · · · · · · · · · · · · · · · · ·	-13	
94-98	9	_	+ 8	12	C. LUN NO	- 1	
99+		8	-	4		+ 3	
	a shuman	Call Based			1 July marks		
	A A Stars (St	E TABLE	A spectrum	1			
	68	68		63	60	+ 3	
	00	00					
			and with the second	12		1.	

The total deviation in the case of males is nil and in the case of females 3. The differences are in no case considerable so that the tables may be considered to be satisfactory. It would hardly be possible to obtain a closer agreement with the data.

The function  $q_x$ , the probability of dying within a year after attaining the age x, having been obtained for every age for both sexes, all the other columns of the Life Table were calculated from it. For general convenience these are explained. The function  $p_x$ , the probability of living one year from age x, together with  $q_x$  are equal to unity. The column  $p_x$  was, therefore, obtained by subtracting each figure in the column  $q_x$  from unity.

The column  $l_x$  gives the number surviving according to the Life Table to the exact age x. The first value of the table is called the radix, and for the South African Life Table the radix is 1,000,000 at the age 0. The column is obtained by a continued multiplication by the value of  $p_x$ . The column  $d_x$ , the number dying in the course of a year of those that entered it, is formed from the differences between each pair of figures in the first column. The column  $L_x$  is the number of years lived in the year of age x to (x + 1), and, therefore, represents the mean population between ages x and (x + 1). It is assumed that except for the year 0 to 1 the deaths that occur in each year of life are uniformly distributed over the year of age. In the case of the first year of life more deaths occur in the first few months than in the latter part.

In the three years 1925 to 1927, 4,976 male and 3,969 female children died under the age of one year, and of these, 3,642 male and 2.858 female children died under the age of six months, that is 73.191318 per cent. and 72.008062 per cent. respectively. For the construction of the  $L_x$  table it may, therefore, be assumed that out of each million male children born 54,481 die before the age of six months, and, out of each million female children born 45,192 die before the age of six months. The first figures in the column are thus 945,519 and 954,808 respectively, and the other figures are the mid-points between each two consecutive values of the function  $l_{\pi}$ .

The column  $T_x$  is the population of the Life Table above the moment of age x. This is obtained by the continued summation of Lr.

The column  $\mathring{e}_x$  is the complete expectation of life, or the total future lifetime which on the average will be lived by a person aged exactly x. It is obtained by dividing each figure in the column  $T_x$  by the corresponding figures in the column  $l_x$ .

Comparative tables are given for all the South African Life Tables and for New Zealand, Australia, England and Wales, and the Irish Free State, showing at certain ages (a) the complete expectation of life (b) the rate of mortality or the number who may be expected to die within a year of 1,000 attaining a particular age, (c) the number of survivors of 1,000,000 born and (d) the probability of surviving 10 years.

It will be seen at once that the improvement in the South African tables is very largely due to the marked decrease in the mortality rates of young children which has been a conspicuous feature in recent years. The death rate of children under one year was 17.7 per cent. higher in Life Table No. 1 than in No. 2 and the crude infantile mortality rate in 1910 and 1911 was 38.4 per cent. higher than in 1926 and 1927. The mortality of young children in Mr. Kops' table is the one weak point in an otherwise admirable calculation. He appears to have assumed that the death rates in the first and second six months of life were equal and to have adjusted his crude rates too drastically. His crude mortality rate for males at birth was 93.18 as compared with 87.84 in Life Table No. 1. As the mortality was somewhat higher in 1919 to 1921 than in 1920 to 1922, the unadjusted rate is comparable rather than his adjusted rate of 78.38. The death rate of young children in Johannesburg in 1908 to 1910 was probably higher than for South Africa as a whole at that date, so that comparison cannot readily be made with Dr. Maynard's table for this period of life. The expectation of life at 20 has increased in the five years period from 45.26 to 46.27 in the case of males, and from 48.15 to 49.34 in the case of females, whereas at birth the expectation of life increased during the same period by over two years.

In comparing the South African Life Table with other countries it will be found that it lies between that for Australia and that for England and Wales. At birth the expectation of life is about two years less than Australia and two years more than England and Wales. It follows this intermediate course until about 60 when the expectation of life is slightly more favourable than Australia and continues so for the older ages. New Zealand which has probably the best expectation in the world has an expectation at birth of about five years in the case of males and four years in the case of females greater than that for South Africa.

At the same time when making this comparison with other countries, it must be remembered that one is comparing the European population of the Union with the entire population of England and Wales. It is probable that the South African European population is living on the average at a higher standard than the average population of England and Wales. This factor should therefore be borne in mind.

## 187. Rates of Mortality of Women by Marital Condition.—An experi-

mental calculation of  $q_x$  for females according to marital condition was made by the same method with which the Life Table for all females was constructed. A close examination of the pivotal values, however, revealed the fact that the data at certain ages was too small to give reliable results. For example an increase of one more death per annum at each year of age of unmarried women between 64 and 68 would have increased the mortality rate by 20 per cent. The rates, therefore, did not always increase step by step as the age increased. A table showing a portion of the calculated rates is given below but even this must be used with caution. A few broad conclusions appear however, to be established. During the period at which women most frequently marry, viz. : 19 to 28, the rate of mortality for married women is considerably higher than that for unmarried. The mortality rate for widows (with whom are included divorced persons) is higher than that for married women. The slightly lower rate at the age of 46 and the disproportionally high rate at 51 (in the case of widows) is probably due to the paucity of the material. The somewhat sudden jump in the rate for unmarried females between 26 and 31 might possibly be due to a tendency for unmarried women belonging to the latter group to understate their ages. There is, however, no available information on this matter. It was not thought advisable to carry the calculations beyond the age of 76, nor worth while to interpolate the intermediate values. It would have been possible by taking 10 year instead of 5 year periods to have produced graduated tables but they would have lost their direct relation to Life Table No. 2. In these circumstances it was decided not to carry the investigation any further, but as calculations of this nature have never hitherto been made the partial results are sufficiently interesting to be made public.

158

# SOUTH AFRICAN LIFE TABLE No. 2.

Female Mortality  $(1,000 q_x)$  by Marital Condition.

Age.	Never Married.	Married.	Widowed and Divorced.	Total Females.
	2.4696	3.3822		9.7366
	$2 \cdot 9553$	3.5294	_	3.3884
	$4 \cdot 4197$	4.1020	*	4.1328
	$4 \cdot 6001$	4.9446	*	4.8067
	*	5.7279	5.7789	5.5859
***********	*	6.6516	6.1199	6.6165
	*	9.0896	11.1379	9.3020
	*	13.6134	13.9448	13.7380
	*	18.4764	20.8081	18.7350
	*	29.4120	35.2230	31.8075
	*	43.3908	48.9821	46.9407
·····	*	74.4429	80.4015	78.7101

of an annuity of 1,  $(a_x)$ , the amounts to secure 1 at death,  $(A_x)$  and the annual payments to secure 1 at death,  $(P_x)$  based on Life Table No. 2 have been calculated for both sexes for each year of age at the rates 4,  $4\frac{1}{2}$  and 5 per cent. The only previous calculation of this description published was contained in the South African Mutual Mortality Tables referred to above. In that publication the value of an annuity of 1  $(a_x)$  was calculated for each age from 15 to 96. As was to be expected the figures are somewhat lower all through than those calculated from South African Table No. 2.

The tables are published in their entirety, but the same qualification with regard to figures at extreme old ages referred to earlier in this report necessarily applies to these calculations as well as to the Life Table itself from which they have been derived.

159

TABLE CLXI (a)-SOUTH AFRICAN LIFE TABLES No. 2.

 $p_{\boldsymbol{x}}$ 

 $\cdot 9483057$  $\cdot 9435540$  $\cdot 9379394$  $\cdot 9314420$  $\cdot 9243227$ 

·9169000 ·9095090 ·9025461 ·8957973 ·8887640

·8808752 ·8714728 ·8597096 ·8456982 ·8302673

·8144745 ·7996419 ·7860004 ·7728529 ·7603250

•7485424 •7376292 •7197095 •7008306 •6809825

·4052132 ·3766845 ·3481045 ·3196479 ·2915016

 $d_x$ 

21,886 22,662 23,510 24,360 25,046

25,421 25,382 24,861 23,992 22,943

21,837 20,754 19,741 18,667 17,365

15,759 13,862 11,839 9,877 8,055

6,425 5,019 3,955 3,038 2,270

1,647 1,157 785 513 322

	MARCE COMPLEX	ALCONX DES		MALES.			A CONTRACTOR OF THE OWNER OF THE	
Age.				and the second	in hanning site to		0	Age
(x)	$l_x$	$d_x$	Px	$q_x$	L <sub>x</sub>	T <sub>x</sub>	e <sub>x</sub>	(x)
0	1.000.000	74.437	· 9255625	.0744375	945.519	57.776.195	57.78	0
1	925,563	17,311	·9812973	·0187027	916,908	56,830,676	61.40	1
2	908,252	6,685	·9926397	·0073603	904.909	55,913,768	61.56	2
3	901,567	4,242	·9952950	·0047050	899,446	55,008,859	61.01	3
4	897,325	3,107	·9965372	·0034628	895,772	54,109,413	60.30	4
5	894.218	2.611	·9970805	·0029195	892.912	53,213,641	59.51	5
6	891,607	2,238	·9974902	·0025098	890,488	52.320.729	58.68	6
7	889,369	1,966	·9977898	·0022102	888,386	51,430,241	57.83	7
8	887,403	1,775	· 9979996	·0020004	886,516	50,541,855	56.95	8
9	885,628	1,650	·9981364	·0018636	884,803	49,655,339	56.07	9
10	883.978	1.579	.9982137	.0017863	883 188	48,770,536	55.17	10
11	882,399	1.552	·9982417	.0017583	881.623	47.887.348	54.27	11
12	880,847	1,562	·9982271	·0017729	880.066	47.005.725	53.36	12
13	879,285	1,606	·9981732	·0018268	878.482	46,125,659	52.46	13
14	877,679	1,685	·9980803	·0019197	876,837	45,247,177	51.55	14
15	875 004	1.800	.0070448	.0020552	875.004	44 870 840	50.65	15
16	874 194	1,000	.9977603	•0020302	873 215	43 495 946	49.75	16
17	872.936	2 166	.9975166	.0024834	871 153	42,622,021	48.87	17
18	870.070	2,436	.9971999	•0028001	868.852	41.750.878	47.99	18
19	867,634	2,723	·9968619	·0031381	866,272	40,882,026	47.12	19
20	964.011	2 000	.0065551	.0024440	969 401	40.015 554	48.97	20
20	864,911	2,980	.9905551	•0034449	803,421	40,015,754	40.27	20
21	859 770	3,101	.0062105	.0030076	857 146	39,102,333	40.42	21
22	000,110	0,241 9.967	- 9902195	-0097009	007,140	97 494 996	43.76	93
23	852,256	3,255	·9961807	·0038193	850,628	36,580,946	42.92	24
borite	and and and	i doider alon ill	aldier said a	and the second	ailder philes ed.	d. galanoitat y		0.5
25	849,001	3,243	•9961799	·0038201	847,380	35,730,318	42.09	25
26	845,758	3,204	•9961412	·0038588	844,126	34,882,938	41.24	20
27	842,494	3,299	.9900840	.0039160	840,844	34,038,812	20.56	21
28	835,866	3,376	•9959605	·0040395	834,178	32,360,437	38.71	20
30	832,490	3,467	•9958356	·0041644	830,756	31,526,259	37.87	30
20	825,045	3,025	•9950290	-0045704	822 460	20 868 201	36.19	32
92	821,591	4 910	• 00/18650	.0051350	810 419	29,000,291	35.35	33
34	817,302	4,587	·9943871	·0056129	815,008	28,225,419	34.53	34
		1.004	000005		010.010	05 (10 (11	00 50	05
35	812,715	4,934	•9939295	•0060705	810,248	27,410,411	00.10	00 96
30	807,781	5,200	•9930003	•0004437	800,179	20,000,103	32.14	30
00	707 208	5,500	.0031551	.0068440	799,092	20,194,004	31.35	38
39	791,751	5,526	·9930200	•0069800	788,988	24,200,613	30.57	39
		5 000			P00 (44	00 411 405	00.50	10
40	786,225	5,629	·9928411	·0071589	783,411	23,411,625	29.78	40
41	780,596	5,813	•9925525	•0074475	777,689	22,028,214	20.99	41
42	774,783	6,098	•9921290	.0078710	771,734	21,000,020	20.20	42
40	762,238	6,829	·9910407	•0089593	758,823	20,313,329	26.65	44
							05.00	
45	755,409	7,216	·9904476	·0095524	751,801	19,554,506	20.89	45
46	748,193	7,579	•9898705	•0101295	744,404	18,802,700	20.10	40
47	740,614	7,009	· 9893482	•0100518	730,009	17,000,301	24.00	41
48 49	732,725	8,450	•9883378	•0111435	720,335	16,592,989	22.90	49
						ALL ALMANDIA		
50	716,110	8,784	·9877336	·0122664	711,718	15,872,654	22.17	50
51	707,326	9,207	•9869837	·0130163	702,722	15,160,936	21.43	51
52	698,119	9,724	•9860715	·0139285	693,257	14,458,214	20.71	42
54	678.092	10,927	•9838860	·0149670 ·0161140	672,628	13,081,713	19.29	54
55	667,165	11,576	·9826486	·0173514	661,377 640,472	12,409,085	18.60	55
57	642 256	12,233	.9013398	0180002	049,473	11,747,700	17.92	57
58	630 467	12,009	9785006	0200343	622 602	10 461 324	16.59	58
59	616,918	14,216	·9769564	·0230436	609,810	9,837,631	15.95	59
-	000 500	11.000	00000	0015100		0.005.001	15.01	
60	602,702	14,893	•9752900	·0247100	595,255	9,227,821	15.31	60
60	579,809	10,081	.9734934	•0265066	580,019	8,032,500	14.07	10
62	555.085	16,243	.0606590	0203830	547 551	0,002,047	12.47	62
64	539,116	17,498	· 9675429	·0303411 ·0324571	530,367	6,940,890	12.87	64
65	521,618	18,165	·9651765	·0348235	512,535	6,410,523	12.29	65
67	000,403	10,898	.9024630	·0375370	494,004	5,097,988	11.15	67
68	464 899	20 394	.0561210	-0405055	414,121	4 929 957	10.60	68
69	444.505	21,133	.9524581	.0475419	433 939	4.474.555	10.07	69
00	11,000		TOOTATOOL	0110110	100,000	1,111,000	20 01	

12

Age (x)

 $l_x$ 

423,372 401,486 378,824 355,314 330,954

305,908 280,487 255,105 230,244 206,252

183,309 161,472 140,718 120,977 102,310

84,945 69,186 55,324 43,485 33,608

25,553 19,128 14,109 10,154 7,116

4,846 3,199 2,042 1,257 744

#### 161

### TABLE CLXI (a)-SOUTH AFRICAN LIFE TABLES No. 2-(Continued).

MALES.

qx	Lr	T.	ê	Age	
10	-*	-2	T.	(x)	
·0516943	412.429	4.040.616	9.54	70	
.0564460	390.155	3 628 187	9.04	71	
·0620606	367.069	3.238.032	8:55	72	
·0685580	343,134	2,870,963	8.08	73	
·0756773	318,431	2,527,829	7.64	74	
·0831000	293,197	2,209,398	7.22	75	
·0904910	267,796	1,916,201	6.83	76	
·0974539	242,675	1,648,405	6.46	77	
·1042027	218,248	1,405,730	6.11	78	
·1112360	194,780	1,187,482	5.76	79	
·1191248	172,391	992,702	5.42	80	
·1285272	151,095	820,311	5.08	81	
·1402904	130,847	669,216	4.76	82	
·1543018	111,644	538,369	4.45	83	
·1697327	93,627	426,725	4.17	84	
·1855255	77,066	333,098	3.92	85	
·2003581	62,255	256,032	3.70	86	
·2139996	49,404	193,777	3.50	87	
·2271471	38,547	144,373	3.32	88 /	
·2396750	29,580	105,826	3.15	89	
·2514576	22,341	76,246	2.98	90	
·2623708	16,618	53,905	2.82	91	
·2802905	12,132	37,287	2.64	92	
·2991694	8,635	25,155	2.48	93	
·3190175	5,981	16,520	2.32	94	
·3398379	4,022	16,539	2.17	95	
·3616259	2,621	6,517	2.04	96	
·3843667	1,649	3,896	1.91	97	
·4080355	1,001	2,247	1.79	98	
·4325948	583	1,246	1.67	99	
·4579945	325	663	1.57	100	
·4841699	174	338	1.48	101	
·5110410	88	164	1.38	102	
.5385121	42	76	1.30	103	
·5664705	20	34	1.22	104	
.5947868	8	14	1.14	105	
·6233155	4	6	1.03	106	
·6518955	1	2	.87	107	
·6803521	1	1	•50	108	
7084984				100	

TABLE CLXI (b)-SOUTH AFRICAN LIFE TABLES No. 2. FEMALES.

								and the second
Age (x)	$l_x$	$d_x$	<i>p</i> x	q <sub>x</sub>	L <sub>x</sub>	T <sub>x</sub>	ê <sub>x</sub>	Age (x)
					-			1
0	1,000,000	62,761	·9372391	·0627609	954,808	61,483,787	61.48	0
1	937,239	17,227	·9816190	.0183810	928,626	60,528,979	64.58	1
2	920,012	7,084	·9923002	.0076998	916,470	59,600,353	64.78	2
2	012 028	2 778	.0058615	.0041385	011 030	58 683 883	64.98	2
4	909 150	2 192	0065652	.0034348	007 588	57 779 844	63.55	4
÷	000,100	0,120	8800002	0004040	001,000	01,112,011	00 00	1 1
5	906 027	9 145	.0076325	.0023675	004 055	56 865 956	62.76	5
6	003 882	1 831	.0070749	•0020075	002.066	55 960 301	61.01	6
7	002.051	1,602	.0022228	.0017769	001 250	55 057 335	61.04	7
1	000,440	1,002	0000010	001//02	501,250	54 150 005	01 04	
8	900,449	1,449	.9983913	.0016087	899,725	54,130,085	00.14	8
9	899,000	1,301	•9984864	·0015136	898,319	53,256,360	59.24	9
	005 000	1 000	0005101	00011000	000.055	50.050.041	50.00	10
10	007,059	1,329	.9989191	.0014809	890,975	51,000,041	00.00	10
11	890,310	1,345	•9984991	.0012009	895,637	51,401,000	07.41	11
12	894,965	1,399	·9984363	·0015637	894,266	50,565,429	96.90	12
13	893,566	1,483	·9983405	·0016595	892,824	49,671,163	55.59	13
14	892,083	1,586	·9982216	·0017784	891,290	48,778,339	54.68	14
		- C. Mithally	120/04	The Party of the P	8002075	1 10 6 200 1 - 7 7 1	015,201	1.
15	890,497	1,701	·9980894	·0019106	889,647	47,887,049	53.78	15
16	888,796	1,819	·9979537	·0020463	887,886	46,997,402	52.88	16
17	886,977	1,930	·9978244	·0021756	886,012	46,109,516	51.99	17
18	885,047	2,048	·9976863	·0023137	884,023	45,223,504	51.10	18
19	882,999	2,169	·9975438	·0024562	881,915	44,339,481	50.21	19
	11.15	116,026	062,02	. Castoria :	Citanuor +	5,051	38,26	1
20	880,830	2,289	·9974014	·0025986	879,685	43,457,566	49.34	20
21	878,541	2,404	·9972634	·0027366	877.339	42,577,881	48.46	21
22	876.137	2,513	·9971320	.0028680	874.881	41,700.542	47.60	22
99	873 624	2.617	.9970043	+0029957	872 315	40.825.661	46.73	23
20	871.007	2,720	• 0968771	.0031229	860 647	39,953,346	45.87	24
24	Crigoon		0000111	0001220	000,011	00,000,010	10 01	
95	868.287	2.824	.9967472	.0032528	866 875	39.083.699	45.01	25
96	865 463	2 033	.0066116	:0033884	862 007	38 216 824	44.16	26
20	862 530	2,000	.0064600	.0025210	961 007	37 359 897	12.21	20
21	950 494	9,010	0000015	0033310	001,007	26 401 990	10.40	00
28	059,404	3,102	.9903215	.0030785	857,903	30,491,020	42.40	20
29	000,022	3,279	.9901708	•0038292	894,082	30,030,917	41.01	29
0.0	959 049	9.900	0000100	0000010	051.045	94 770 995	40.77	90
30	840.647	9,590	.9900100	0039612	001,040	22 027 800	20.02	00
31	040 100	5,511	.9958072	•0041328	847,892	35,927,050	39.93	51
32	040,130	3,020	.9957145	•0042855	844,323	33,079,990	39.10	32
33	842,510	3,741	·9955595	·0044405	840,639	32,235,675	38.26	33
34	838,769	3,855	·9954044	·0045956	836,842	31,395,036	37.43	34
				(176-DG	The second	00 550 404		
35	834,914	3,965	·9952516	·0047484	832,931	30,558,194	36.60	35
36	830,949	4,069	·9951033	·0048967	828,915	29,725,263	35.77	36
37	826,880	4,162	·9949662	·0050338	824,799	28,896,348	34.95	37
38	822,718	4,246	·9948386	·0051614	820,595	28,071,549	34.12	38
39	818,472	4,329	·9947109	·0052891	816,307	27,250,954	33.29	39
		-		1	TANKING.			
40	814,143	4,418	·9945729	$\cdot 0054271$	811,934	26,434,647	32.47	40
41	809,725	4,523	·9944147	·0055853	807,464	25,622,713	31.64	41
42	805,202	4,625	·9942564	·0057436	802,889	24,815,249	30.82	42
43	800,577	4,720	·9941048	·0058952	798,217	24,012,360	29.99	43
44	795,857	4,831	·9939293	·0060707	793,442	23,214,143	29.17	44
45	791,026	4,984	·9936992	·0063008	788,534	22,420,701	28.34	45
46	786,042	5,201	•9933835	.0066165	783.441	21,632,167	27.52	46
47	780.841	5.481	•9929810	.0070190	778.101	20,848,726	26.70	47
18	775.360	5.806	.0025113	-0074887	779 457	20.070.625	25.89	48
49	769.554	6.176	.9919743	.0080257	766 466	19,298.168	25.08	- 49
10		.,	0010110	0000101	100,100			
50	763.378	6.588	·9913697	.0086303	760.084	18,531,702	24.28	50
51	756 790	7 040	:0006071	.0003020	752 270	17 771 618	23.48	51
59	749 750	7.546	.0800248	.0100652	745 077	17 018 348	22.70	59
54	742 204	9 105	0200204	0100052	740,077	16 979 971	21.02	59
00	724 000	0,105	9090004	0119390	730,131	15 524 220	21 02	54
04	101,000	0,000	. 9001054	.0110900	149,100	10,001,220	21 10	51
55	725.410	9.276	.9879133	.0197867	790 779	14.804.465	20.41	55
50	716 134	0,270	- 3072133	-0127007	711 915	14 083 603	10.67	56
50	706 206	10,000	9002020	0107000	711,210	12 379 478	18.02	57
57	605.000	10,300	.9004102	0140838	701,140	10,012,410	10.00	50
58	095,990	10,679	•9846565	•0153435	690,656	12,071,332	18.21	58
59	080,317	11,087	•9838228	·0161772	679,774	11,980,676	17.48	29
20	674 000	11 001	0007100	0150500	000 111	11 200 002	10.70	20
60	074,230	11,631	•9827498	·0172502	668,414	11,300,902	10.76	60
61	662,599	12,414	·9812650	·0187350	656,392	10,632,488	16.05	61
62	650,185	13,496	$\cdot 9792426$	$\cdot 0207574$	643,437	9,976,096	15.34	62
63	636,689	14,790	·9767708	·0232292	629,294	9,332,659	14.66	63
64	621,899	16,171	·9739966	·0260034	613,814	8,703,365	13.99	64
65	605,728	17,518	·9710792	·0289208	596,969	8,089,551	13.36	65
66	588,210	18,709	·9681925	$\cdot 0318075$	578,855	7,492,582	12.74	66
67	569,501	19,636	·9655199	$\cdot 0344801$	559,683	6,913,727	12.14	67
68	549,865	20,372	·9629516	·0370484	539,679	6,354,044	11.56	68
69	529,493	21,064	·9602181	·0397819	518.961	5,814,365	10.98	69

.	estates T	15th			Main Main	- Trailer		1			
Age (x)	$l_x$	$d_x$	$p_x$	$q_x$	$L_x$	$T_x$	êx	A			
gundanu	unini i d'az i ja	2 1016 .2.	Sama M. A.S.		in a Kan		N 182 2 18 1	(			
70	500 400				1			İ			
70	008,429	21,849	•9570274	•0429726	497,505	5,295,404	10.42	1			
71	480,080	22,840	• 9530593	·0469407	475,160	4,797,899	9.86				
79	403,740	24,124	•9479800	•0520200	451,678	4,322,739	* 9.32				
70	439,010	20,040	•9418924	•0581076	426,843	3,871,061	8.81	-			
14	414,071	26,898	.9351358	·0648642	400,642	3,444,218	8.32				
75	387 213	27 837	.0281106	.0718804	979 905	0.010 570					
76	359 376	28 287	.0212800	.0787101	245 999	3,043,576	7.86				
77	331 089	28,076	.9152018	.0847082	217 051	2,670,281	7.43				
78	303.013	27 394	.9095958	.0004042	208 216	2,325,049	7.02				
79	275.619	26.524	.9037643	.0062357	230,310	2,007,998	0.03				
E			0001010	0002001	202,001	1,/10,002	0.24				
80	249,095	25,680	· 8969073	·1030927	236.255	1 456 325	5.85	1			
81	223,415	24,999	·8881062	·1118938	210,916	1 220 070	5.46				
82	198,416	24,557	·8762352	$\cdot 1237648$	186,137	1,009,154	5.09				
83	173,859	24,089	·8614460	$\cdot 1385540$	161,815	823.017	4.73	5			
84	149,770	23,245	·8447948	·1552052	138,147	661,202	4.41	1			
85	126 525	21 803	.9976740	.1709051	115 004	500.055	10	1 28			
86	104 722	19 700	.8118898	.1001169	113,024	523,055	4.13	2			
87	85 022	17 165	.7081078	.9018099	94,072	407,431	3.89	8			
88	67.857	14 558	7954557	-2010922	76,439	312,559	3.68	8			
89	53 299	12.068	.7735819	.9964188	47.965	200,120	3.48	2			
	00,200	12,000	1100012	2204100	47,200	175,542	3.29	5			
90	41,231	9,811	·7620529	·2379471	36,326	128,277	3.11	5			
91	31,420	7,844	·7503612	$\cdot 2496388$	27,498	91,951	2.93				
92	23,576	6,323	·7318087	$\cdot 2681913$	20,414	64,453	2.73				
93	17,253	4,966	·7121587	·2878413	14,770	44,039	2.55	9			
94	12,287	3,792	·6913940	·3086060	10,391	29,269	2.38	(			
95	8,495	2,808	·6695055	·3304945	7.091	18.878	9.99				
96	5,687	2,010	·6464944	·3535056	4 682	11 787	2.07				
97	3,677	1,389	·6223739	·3776261	2,983	7 105	1.03				
98	2,288	922	·5971705	·4028295	1.827	4,122	1.80				
99	1,366	586	·5709267	$\cdot 4290733$	1,073	2,295	1.68	9			
00	780	256	.5497091	1500000	200	1 000					
01	12 424	205	5155751	4002979	002	1,222	1.57	10			
02	210	112	.1866111	5199556	321	020	1.40	10			
03	107	58	•4570307	-5490609	105	299	1.30	10			
.04	49	28	•4268765	.5731235	35	58	1.27	10			
20	51-01 - 10-R	A CONTRACTOR OF CONTRACTOR	10-11-1				1 10	10			
05	21	13	·3963464	·6036536	15	23	1.09	10			
06	8	5	·3656271	$\cdot 6343729$	5	8	•97	10			
07	3	2	·3349250	·6650750	2	3	•84	10			
08	1	1	·3044642	·6955358	1	1	•50	10			
09	-	_	·2744827	·7255173				10			
000.00	1 00,000 1 1 1 24	001000	-4- 12- 123	LE Deventer Bit	and and a second		PROCESSION -				

#### 163

#### TABLE CLXI (b)-SOUTH AFRICAN LIFE TABLES No. 2-(Continued).

FEMALES.

			Male.				Female.	
Age.	S.A. No. 2. 1925-27.	8.A. No. 1. 1920–22.	Mr. C. W. Kops. 1919-21.	Johannesburg. 1910.	S.A. Mutual. 1845–95.	S.A. No. 2. 1925–27.	S.A. No. 1. 1920–22.	Johannesburg 1910.
		option Billion Billion Statistics Billion Billion	(a) Complete	EXPECTATION	OF LIFE $(\mathring{e}_x)$ .		545 545 645	
0	57.78	55.61	53.85	50.33		61.48	59.18	55.07
1	61.40	59.94	57.38	56.47	-	64.58	62.88	60.86
2	61.56	60.26	58.33	57.35	-	64.78	63.20	61.39
3	61.01	59.79	58.21	56.60	_	63.55	62.12	60.38
* 5	59.51	58.34	56.92	56.00		62.76	61.38	59.72
10	55:17	54.02	$52 \cdot 62$	$52 \cdot 02$	-	58.33	57.00	55.79
20	$46 \cdot 27$	45.26	44.02	43.18	42.69	49.34	48.15	47.00
30	37.87	37.08	36.37	35.21	34.40	40.77	39.93	30.72
40 50	29.17	29.10	20.00	21.01	19.63	24.28	23.97	25.10
60	15.31	15.14	15.04	15.13	13.56	16.76	16.56	16.51
70	9.54	9.53	9.63	9.49	8.22	10.42	10.35	10.67
80	5.42	5.56	5.58	5.09	5.80	5.85	5.78	5.60
90 LOO	2.98	1.33	1.23		4.20	1.57	1.53	. 1.05
			451.00	the letter	Citypes	834721 200,51	188.3 065.6	1
	THE .	en de la	( <i>b</i> ) Rate	OF MORTALITY	$x (1,000q_x).$	1 parts		-
0	74.44	87.84	78.38	125.35		62.76	73.88	110.66
1	18.70	21.64	33.12	32.57	-	18.38	20.76	24.74
2	7.36	8.91	14.99	14.15	-	, 7·70 4·14	9.15	9.37
3	4.71 3.46	3.44	4.59	5.55	and the second	3.43	4.25	5.54
5	2.92	2.94	3.28	3.79	_	2.37	3.04	3.76
10	1.79	2.00	2.17	2.23	-	1.48	1.64	2.38
20	3.44	3.94	4.79	4.42	4.43	2.00	5.06	5.43
30	4.10	8.17	8.91	12.73	9.40	5.43	6.20	7.75
50	12.27	13.45	14.46	19.86	17.53	8.63	9.45	14.86
60	24.71	25.96	27.05	$31 \cdot 62$	34.99	17.25	18.66	26.62
70	51.69	56.33	55.03	56.34	64.24	42.97	45.64	49.26
80	119.12	119.90	251.66	121.18	130.04	237.95	238.34	419.41
90 100	457.99	499.00	547.19	_	-	456.30	443.00	-
	Service .		(c) Nu	MBER OF SURVI	VORS $(l_x)$ .			
0	1 000 000	1 000 000	1.000.000	1.000.000	_	1,000,000	1,000,000	1,000,000
1	925,563	912,156	921,620	874,650		937,239	926,116	889,340
2	908,252	892,420	891,096	846,160	-	920,012	906,893	867,340
3	901,567	884,467	877,738	834,190	_	912,928	893,791	853.350
4 5	897,325	876,395	867.034	822,050	_	906,027	889,991	848,620
10	883,978	865,897	856,035	806,590	- 11.11	897,639	880,837	832,790
20	864,911	844,152	831,295	786,970	-	880,830	861,455	813,380
30	832,490	807,557	783,876	746,270		853,043	783 030	780,760
40 50	786,225	680,810	650,938	594,430	_	763,378	726,337	671,870
- 111	602,702	567,732	535,662	474,860	-	674,230	637,336	561,080
60	423,372	392,052	364,149	325,540	-	508,429	474,298	404,750
60 70	183,309	169,494	160,010	143,240	-	249,095	230,546	217,060
60 70 80	25,553	26,526	24,954 241	13,900	-	41,231 780	1,016	740
60 70 80 90	4.7.7.	UU1.				10.04.01		
60 70 80 90 00	422	088		n	G 10 YEARS (10)	$p_x).$		
60 70 80 90 00	422	088 099	(d) PROBABILIT	TY OF SURVIVIN				
60 70 80 90 .00	422	-86590	(d) PROBABILIT	·80659		·89764	·88084	•83279
60 70 80 90 100	*88398 - 97843	- 86590 - 97489	(d) PROBABILI?	-80659 -97568		·89764 ·98127	•88084 •97800	•83279 •97669
60 70 80 90 100 20	*222 -88398 -97843 -96252	- 86590 - 97489 - 95665	(d) PROBABILI? - 85604 - 97110 - 94296	-80659 -97568 -94828		-89764 -98127 -96845	-88084 -97800 -96021	+83279 +97669 +95990
60 70 80 90 .00 0 10 20 30	+222 -88398 -97843 -96252 -94443	-86590 -97489 -95665 -93844	(d) PROBABILIT - 85604 - 97110 - 94296 - 92783 - 92783	- 80659 - 97568 - 94828 - 91892 - 96600		-89764 -98127 -96845 -95440 -08755	-88084 -97800 -96021 -94663 -92760	-83279 -97669 -95990 -94339 -01217
60 70 80 90 00 00 00 10 20 30 40 50	+222 +88398 •97843 •96252 •94443 •91082 •84162	-86590 -97489 -95665 -93844 -89835 -83201	(d) PROBABILIT - 85604 - 97110 - 94296 - 92783 - 89501 - 82901	-80659 -97568 -94828 -91892 -86682 -79885		89764 98127 96845 95440 93765 88322	-88084 -97800 -96021 -94663 -92760 -87747	-83279 -97669 -95990 -94339 -91217 -83510
60 70 80 90 00 00 00 00 00 10 20 30 30 40 50 60	*88398 •97843 •96252 •94443 •91082 •84163 •70246	- 86590 - 97489 - 95665 - 93844 - 89835 - 83391 - 69056	(d) PROBABILIT - 85604 - 97110 - 94296 - 92783 - 89501 - 82291 - 67981	-80659 -97568 -94828 -91892 -86682 -79885 -68555		-89764 -98127 -96845 -95440 -93765 -88322 -75409	-88084 -97800 -96021 -94663 -92760 -87747 -74419	-83279 -97669 -95990 -94339 -91217 -83510 -72138
60 70 80 90 00 00 00 00 0 0 10 20 30 40 50 60 70	+222 -88398 -97843 -96252 -94443 -91082 -84163 -70246 -43297	- 86590 - 97489 - 95665 - 93844 - 89835 - 83391 - 69056 - 43233	(d) PROBABILIT - 85604 - 97110 - 94296 - 92783 - 89501 - 82291 - 67981 - 43941	-80659 -97568 -94828 -91892 -86682 -79885 -68555 -44001		- 89764 - 98127 - 90845 - 95440 - 93765 - 88322 - 75409 - 48993	-88084 -97800 -96021 -94663 -92760 -87747 -74419 -48608	-83279 -97669 -95990 -94339 -91217 -83510 -72138 -53628
60 70 80 90 00 00 00 00 00 00 00 00 00 00 00 00	*222 -88398 -97843 -96252 -94443 -91082 -84163 -70246 -42297 -13940	- 86590 - 97489 - 95665 - 93844 - 89835 - 83391 - 69056 - 43233 - 15650	(d) PROBABILIT -85604 -97110 -94296 -92783 -89501 -82291 -67981 -43941 -15595	-80659 -97568 -94828 -91892 -86682 -79885 -68555 -44001 -09746		- 89764 - 98127 - 90845 - 95440 - 93765 - 88322 - 75409 - 48993 - 16552 - 0200	-88084 -97800 -96021 -94663 -92760 -87747 -74419 -48608 -17986	-83279 -97669 -95990 -94339 -91217 -83510 -72138 -53628 -20930 -01220

			Male.				Female.				
Age.	8.A. No. 2. 1925-27.	New Zealand. 1921–22.	Australia. 1920–22.	England and Wales No. 9. 1920-22.	Irish Free State. 1925–27.	S.A. No. 2. 1925–27.	New Zealand. 1921–22.	Australia. 1920–22.	England and Wales No. 9. 1920-22.	Irish Free State 1925–27.	
	1	1		(a) Completi	E EXPECTAT	ION OF LIF	$E(\mathring{e}_x).$		1		
0 1 2 3 4 5 10 20 30 40 50 60 70	$\begin{array}{c} 57\cdot78\\ 61\cdot40\\ 61\cdot56\\ 61\cdot01\\ 60\cdot30\\ 59\cdot51\\ 55\cdot17\\ 46\cdot27\\ 37\cdot87\\ 29\cdot78\\ 22\cdot17\\ 15\cdot31\\ 9\cdot54 \end{array}$	$\begin{array}{c} 62 \cdot 76 \\ 65 \cdot 05 \\ 64 \cdot 51 \\ 63 \cdot 81 \\ 63 \cdot 01 \\ 62 \cdot 17 \\ 57 \cdot 73 \\ 48 \cdot 66 \\ 39 \cdot 98 \\ 31 \cdot 56 \\ 23 \cdot 51 \\ 16 \cdot 03 \\ 9 \cdot 91 \end{array}$	$59 \cdot 15 \\62 \cdot 67 \\62 \cdot 60 \\61 \cdot 99 \\61 \cdot 25 \\60 \cdot 43 \\56 \cdot 01 \\46 \cdot 99 \\38 \cdot 44 \\30 \cdot 05 \\22 \cdot 20 \\15 \cdot 08 \\9 \cdot 26$	$\begin{array}{c} 55\cdot 62\\ 60\cdot 07\\ 60\cdot 50\\ 60\cdot 14\\ 59\cdot 53\\ 58\cdot 81\\ 54\cdot 64\\ 45\cdot 78\\ 37\cdot 40\\ 29\cdot 19\\ 21\cdot 36\\ 14\cdot 36\\ 8\cdot 75\end{array}$	$57 \cdot 37 \\61 \cdot 15 \\61 \cdot 32 \\60 \cdot 88 \\60 \cdot 24 \\59 \cdot 50 \\55 \cdot 20 \\46 \cdot 40 \\38 \cdot 39 \\30 \cdot 43 \\22 \cdot 67 \\15 \cdot 75 \\10 \cdot 20 \\$	$\begin{array}{c} 61\cdot 48\\ 64\cdot 58\\ 64\cdot 78\\ 64\cdot 28\\ 63\cdot 55\\ 62\cdot 76\\ 58\cdot 33\\ 49\cdot 34\\ 40\cdot 77\\ 32\cdot 47\\ 24\cdot 28\\ 16\cdot 76\\ 10\cdot 42\end{array}$	$\begin{array}{c} 65{\cdot}43\\ 67{\cdot}03\\ 66{\cdot}44\\ 65{\cdot}72\\ 64{\cdot}90\\ 64{\cdot}05\\ 59{\cdot}50\\ 50{\cdot}36\\ 41{\cdot}76\\ 33{\cdot}23\\ 24{\cdot}91\\ 17{\cdot}29\\ 10{\cdot}57\end{array}$	$\begin{array}{c} 63\cdot 31\\ 66\cdot 03\\ 65\cdot 86\\ 65\cdot 21\\ 64\cdot 44\\ 63\cdot 64\\ 59\cdot 20\\ 50\cdot 03\\ 41\cdot 48\\ 33\cdot 14\\ 24\cdot 90\\ 17\cdot 17\\ 10\cdot 41\\ \end{array}$	$\begin{array}{c} 1 \\ 59; 58 \\ 62: 99 \\ 63: 35 \\ 62: 98 \\ 62: 38 \\ 61: 67 \\ 57: 53 \\ 48: 73 \\ 40: 26 \\ 31: 86 \\ 23: 69 \\ 16: 22 \\ 9: 95 \end{array}$	$57 \cdot 93 \\ 60 \cdot 83 \\ 60 \cdot 97 \\ 60 \cdot 54 \\ 59 \cdot 90 \\ 59 \cdot 17 \\ 54 \cdot 92 \\ 46 \cdot 36 \\ 38 \cdot 60 \\ 30 \cdot 83 \\ 23 \cdot 19 \\ 16 \cdot 36 \\ 10 \cdot 72 \\ \end{array}$	
80 90 100	$5 \cdot 42$ 2 \cdot 98 1 \cdot 57	$     \begin{array}{r}       5 \cdot 33 \\       2 \cdot 31 \\       \cdot 75     \end{array} $	5.00 2.60 1.17	4.93 2.82	5.81 3.27 1.81	5.85 3.11 1.57	5.78 2.52 .92	$5.61 \\ 2.91 \\ 1.24$	5.56 3.13	$6 \cdot 47 \\ 3 \cdot 74 \\ 2 \cdot 08$	
81		<u> </u>		(b) RAT	e of Morta	LITY $(1,000q_x)$	).				
0 1 2 3 4 5 10 20 30 40 50 60 70 80 90	$\begin{array}{c} 74\cdot 44\\ 18\cdot 70\\ 7\cdot 36\\ 4\cdot 71\\ 3\cdot 46\\ 2\cdot 92\\ 1\cdot 79\\ 3\cdot 44\\ 4\cdot 16\\ 7\cdot 16\\ 12\cdot 27\\ 24\cdot 71\\ 51\cdot 69\\ 119\cdot 12\\ 251\cdot 46\\ 4\cdot 7\cdot 90\end{array}$	$\begin{array}{c} 50\cdot 17\\ 7\cdot 07\\ 4\cdot 62\\ 3\cdot 13\\ 2\cdot 60\\ 2\cdot 26\\ 1\cdot 41\\ 2\cdot 55\\ 3\cdot 60\\ 5\cdot 63\\ 9\cdot 38\\ 20\cdot 01\\ 48\cdot 15\\ 113\cdot 68\\ 306\cdot 00\\ 706\cdot 15\end{array}$	71.32 $14.60$ $6.25$ $4.23$ $3.00$ $2.52$ $1.56$ $2.843$ $3.90$ $6.17$ $11.58$ $24.07$ $52.90$ $133.40$ $283.00$ $520.00$	$\begin{array}{c} 89 \cdot 96 \\ 23 \cdot 39 \\ 10 \cdot 50 \\ 6 \cdot 50 \\ 4 \cdot 75 \\ 4 \cdot 17 \\ 1 \cdot 81 \\ 3 \cdot 49 \\ 4 \cdot 34 \\ 6 \cdot 88 \\ 11 \cdot 79 \\ 25 \cdot 61 \\ 59 \cdot 97 \\ 140 \cdot 02 \\ 267 \cdot 52 \end{array}$	$\begin{array}{c} 77\cdot 16\\ 18\cdot 91\\ 9\cdot 13\\ 5\cdot 96\\ 4\cdot 31\\ 3\cdot 31\\ 1\cdot 66\\ 4\cdot 01\\ 5\cdot 29\\ 7\cdot 05\\ 11\cdot 30\\ 24\cdot 28\\ 49\cdot 13\\ 113\cdot 89\\ 226\cdot 90\\ 49\cdot 91\\ \end{array}$	$\begin{array}{c} 62\cdot 76\\ 18\cdot 38\\ 7\cdot 70\\ 4\cdot 14\\ 3\cdot 43\\ 2\cdot 37\\ 1\cdot 48\\ 2\cdot 60\\ 3\cdot 98\\ 5\cdot 43\\ 8\cdot 63\\ 17\cdot 25\\ 42\cdot 97\\ 103\cdot 09\\ 237\cdot 95\\ 42\cdot 97\\ 103\cdot 09\\ 237\cdot 95\\ 42\cdot 97\end{array}$	$\begin{array}{c} 38\cdot50\\ 6\cdot13\\ 4\cdot20\\ 2\cdot80\\ 2\cdot27\\ 1\cdot89\\ 1\cdot12\\ 2\cdot44\\ 3\cdot55\\ 4\cdot60\\ 8\cdot24\\ 16\cdot13\\ 40\cdot28\\ 103\cdot25\\ 276\cdot64\\ eeg.\ et \end{array}$	$\begin{array}{c} 55\cdot 68\\ 12\cdot 51\\ 5\cdot 23\\ 8\cdot 67\\ 2\cdot 98\\ 2\cdot 40\\ 1\cdot 27\\ 2\cdot 52\\ 3\cdot 87\\ 5\cdot 24\\ 8\cdot 08\\ 15\cdot 71\\ 40\cdot 90\\ 112\cdot 30\\ 251\cdot 00\\ 501\cdot 00\\ \end{array}$	$\begin{array}{c} 69\cdot 42\\ 21\cdot 37\\ 9\cdot 91\\ 6\cdot 30\\ 4\cdot 65\\ 4\cdot 24\\ 1\cdot 80\\ 8\cdot 06\\ 3\cdot 92\\ 5\cdot 32\\ 9\cdot 15\\ 18\cdot 97\\ 46\cdot 46\\ 117\cdot 66\\ 238\cdot 52\end{array}$	$\begin{array}{c} 63 \cdot 46 \\ 18 \cdot 46 \\ 9 \cdot 40 \\ 5 \cdot 94 \\ 4 \cdot 45 \\ 3 \cdot 50 \\ 1 \cdot 95 \\ 4 \cdot 47 \\ 5 \cdot 90 \\ 7 \cdot 47 \\ 11 \cdot 39 \\ 23 \cdot 94 \\ 46 \cdot 47 \\ 100 \cdot 49 \\ 196 \cdot 81 \\ 955  20 \end{array}$	
100,	491.99	700.13	550.00	(c) NU	MBER OF SUI	$\frac{430}{30}$ RVIVORS $(l_{\pi})$ .	003.01	301.00		222.23	
	484 				MBER OF SUI	$(v_x)$ .	1000		10,03		
0 1 2 3 4 5 10 20 30 40 50 60 70 80 90 100	$1,000,000\\925,563\\908,252\\901,567\\897,325\\894,218\\883,978\\864,911\\832,490\\786,225\\716,110\\602,702\\423,372\\183,309\\25,553\\422$	1,000,000 949,830 943,110 933,750 935,810 933,380 924,820 908,530 881,770 843,340 784,940 688,510 503,630 236,420 29,980 40	$\begin{array}{c} 1,000,000\\ 928,680\\ 915,120\\ 909,400\\ 905,550\\ 902,830\\ 893,890\\ 876,970\\ 847,430\\ 808,130\\ 743,300\\ 633,860\\ 443,320\\ 186,140\\ 21,410\\ 170\\ \end{array}$	1,000,000 910,040 888,750 879,420 873,700 889,550 887,480 805,490 762,940 689,160 588,040 395,260 150,350 17,100	1,000,000 922,840 905,390 897,120 897,120 887,930 877,150 856,300 816,860 769,750 706,570 599,270 425,330 195,500 33,998 912	$\begin{array}{c} 1,000,000\\ 937,239\\ 920,012\\ 912,928\\ 909,150\\ 906,027\\ 897,639\\ 880,830\\ 853,043\\ 814,143\\ 763,378\\ 674,230\\ 508,429\\ 249,095\\ 41,231\\ 780\\ \end{array}$	1,000,000 965,610 955,610 948,940 948,940 946,790 939,990 925,090 887,280 887,280 887,70 813,380 724,950 566,440 285,810 46,390 120	$\begin{array}{c} 1,000,000\\ 944,320\\ 932,510\\ 927,630\\ 924,230\\ 921,480\\ 913,140\\ 899,060\\ 870,860\\ 832,790\\ 783,130\\ 701,500\\ 547,710\\ 271,700\\ 42,380\\ 620\\ \end{array}$	1,000,000 930,580 910,690 901,670 895,990 891,820 879,090 859,380 830,190 793,810 742,460 652,020 484,010 222,950 34,470	$\begin{array}{l} 1,000,000\\ 936,540\\ 919,250\\ 910,610\\ 901,170\\ 889,330\\ 864,150\\ 819,440\\ 768,270\\ 703,240\\ 596,660\\ 2428,200\\ 211,890\\ 46,940\\ 2,197\end{array}$	
	int.		(d	) Probability	Y OF SURVIVI	ng 10 Years	$(_{10}p_x).$		1.307 132		
0 10 20 30 40 50 60 70 80 90 100	- 88398 - 97843 - 96252 - 94443 - 91082 - 84163 - 70246 - 43297 - 13940 - 01652 	•92482 98239 97055 95642 98075 887715 73148 •46943 •12681 •00133	- 89389 - 98107 - 96632 - 95362 - 91978 - 85276 - 69940 - 41988 - 11502 - 00794	- 85693 - 97730 - 96180 - 94718 - 91640 - 84107 - 67217 - 38038 - 11373 	.87715 .97623 .95394 .94233 .91792 .84814 .70975 .45964 .17390 .02683 	. 89764 . 98127 . 90845 . 95440 . 93765 . 88322 . 75409 . 48993 . 16552 . 01892 	·93999 ·98415 ·96994 ·96154 ·94275 ·89128 ·78135 ·50457 ·16231 ·00259 ·	·91314 ·98458 ·96863 ·95628 ·94037 ·89576 ·78077 ·49607 ·15598 ·01463	-87909 97758 -96603 -95618 -93531 -87819 -74232 -46063 -15461	-88933 -97169 -94826 -93755 -91536 -84844 -71766 -49484 -22153 -04680	

#### 

# TABLE CLXIII.—COMPARISON OF SOUTH AFRICAN LIFE TABLE No. 2, WITH THOSE OF OTHER OUNTRIES AT CERTAIN AGES.

1925.

1

2

| | |

8,712

1926 : Population Census Figures Adjusted to 30/6/26.

3,669 3,363 2,833 2,709 2,440

2,370 2,124 1,844 1,682 1,420

1,385 1,207 969 818 677

------

| | |

857,590

Males.

1927.

Deaths Registered in Each of 1925, 1926, and 1927.

1926.

2 1

-

\_\_\_\_\_1 \_\_\_\_1

9,118

9,456

	1		М	ales.		-	Females. Deaths Registered in Each of 3 Years : 1925, 1926, and 1927.					
ge: ears.	1926: Population Census Figures Adjusted to 30/6/26.	Deat	ths Registered 1925, 192	in Each of 3 26, and 1927.	Years :	1926 : Population Census Figures Adjusted to 30/6/26.						
	.e67 e.e. 22-621	1925.	1926.	1927.	Total.		1925.	1926.	1927.	Total.	4.5	
0	21.067	1,692	1,570	1.714	4,976	20.062	1.277	1,274	1,418	3,969		
1	20,319	387	343	423	1,153	19,171	377	315	385	1,077		
2	19,725	147	114	174	435	19,079	132	154	150	436		
3	20,035	89	85	103	277	19,493	86	78	70	234		
4	20,472	62	80	61	203	19,707	67	67	60	194		
5	20.431	63	59	54	160	19 810	27	40	45	131	in consider	
6	19,590	44	43	46	133	18,871	26	45	41	112	5-100 12	
7	19,624	42	54	41	137	19,052	33	38	34	105	1. 10-18	
8	19,724	41	40	37	118	18,505	35	29 .	32	96		
9	19,453	34	49	36	119	18,746	31	34	31	96		
10	18.622	31	33	37	101	18.012	25	21	29	75	1	
11	19,560	32	41	37	110	18,816	26	37	30	93	1	
12	19,625	35	35	28	98	19,311	29	20	28	77	1	
13	19,561	27	46	25	98	19,389	32	31	33	96	1	
14	19,118	26	33	39	98	18,658	31	41	38	110	1	
15	18 945	32	34	4.4	110	18 233	39	36	42	110	1	
16	18,454	41	37	38	116	17,864	36	32	31	99	1	
17	17,952	43	56	47	146	17,688	32	33	29	94	1	
18	18,053	57	47	55	159	18,211	45	41	58	144	1	
19	17,479	53	68	59	180	17,690	36	41	43	120	1	
20	17 184	70	62	75	207	17 104	46	44	47	137	9	
21	16,573	47	52	65	164	16,681	41	53	53	147	2	
22	16,178	48	50	54	152	16,379	41	41	57	139	2	
23	12,978	47	58	65	170	13,462	. 42	35	45	122	2	
24	10,840	42	43	50	135	11,435	35	33	35	103	2	
25	11.201	43	40	44	127	12,004	50	34	29	113	2	
26	11,946	36	47	49	132	12,969	36	56	46	138	2	
27	11,581	46	41	38	125	12,412	32	54	46	132	2	
28	11,977	36	50	64	150	12,553	53	46	40	139	2	
29	12,031	45	47	50	142	12,587	56	57	40	153	2	
30	12,439	40	57	48	145	12,980	58	62	47	167	3	
31	11,535	51	47	51	149	11,747	33	32	44	109	3	
32	11,983	48	60	68	176	12,069	55	60	44	159	3	
33	11,810	62	64	57	183	11,987	59	53	63	175	3	
34	11,189	60	65	62	187	11,233	48	57	64	169	3	
35	11.409	69	69	74	212	11.305	49	53	59	161	3	
36	10,920	71	77	67	215	11,026	59	56	57	172	3	
37	11,000	56	76	79	211	10,934	45	61	43	149	3	
38	10,631	76	76	84	236	10,816	48	60	55	163	3	
39	10,268	63	60	69	192	10,205	56	61	48	165	3	
40	10,420	79	75	70	224	9.893	61	57	49	167	4	
41	9,595	62	64	72	198	9,037	45	43	33	121	4	
42	9,948	93	75	85	253	9,399	69	55	68	192	4	
43	10,094	86	88	97	271	9,099	47	49	61	157	4	
44	9,938	63	92	82	237	8,556	50	46	57	153	4	
45	10,647	111	120	-107	338	9,075	52	63	55	170	4	
46	10,291	87	109	106	302	8,339	51	47	50	148	4	
47	9,329	81	94	110	285	7,619	63	52	60	175	4	
48	9,425	101	130	121	352	7,743	66	64	52	182	4	
49	9,198	96	120	110	326	7,422	47	55	68	170	• 4	
50	9,302	125	113	102	340	7,719	61	54	68	183	5	
51	8,180	89	74	105	268	6,358	52	63	46	161	E	
52	8,039	107	133	142	382	6,344	81	82	73	236	5	
53 54	7,841	112	129	119	360	6,368	60 67	69	80	209	5	
	1,152	110	120	194	370	5,721	07	12	01	220		
55	7,207	99	114	139	352	5,695	74	65	63	202	E	
56	6,573	148	140	127	415	5,398	79	71	78	228	5	
58	5,882	103	103	123	329	4,991	67	78	70	215		
59	5,195	116	127	117	370	4.346	65	74	58	197	F	
	1-0-		20.		0.0	-,010	00		00		1	

4,425 3,789 3,692 3,591 3,157

-		Female	es.			1 in the second			
-	Death	a Decistored in	Fach of 2 V			A ro-			
es	Death	1925, 1926,	and 1927.	ars.	Age : Years.	Years.			
	1925.	1926.	1927.	Total.					
-	200-0021								
	1,277	1,274	1,418	3,969	0	65			
1	• 377	315	385	1,077	1	67			
	132	154	150	436	2	68			
	86	78	70	234	3	69			
	67	67	60	194	4	2010-11			
	37	49	45	131	5	70			
	26	45	41	112	6	71			
	33	38	34	105	7	72			
	35	29 .	32	96	8	73			
	31	34	31	96	9	14			
	95	91	90	75	10	75			
	20	21	30	03	10	76			
	20	20	28	77	12	77			
	32	31	33	96	13	78			
	31	41	38	110	14	79			
	2.85-8-1	02-0.4	10-01	12.1		00000			
	32	36	42	110	15	80			
	36	32	31	99	16	01			
0	32	33	29	94	17	62			
_	45	41	58	144	18	84			
	36	41	43	120	19				
	46	44	47	137	20	85			
-	41	53	53	147	21	86			
I.	41	41	57	139	22	87			
	42	35	45	122	23	88			
	35	33	35	103	24	09			
		82-42	18-13			90			
	50	34	29	113	25	91			
	36	56	46	138	26	92			
	32	54	46	132	27	93			
	53	46	40	139	28	94			
	90	97	40	155	29	1 ALANTAL			
-	58	62	47	167	30	95			
	33	32	44	109	31	96			
	55	60	44	159	32	97			
	59	53	63	175	33	90			
	48	57	64	169	34				
	40	59	50	161	25'	100			
-	±0 50	56	57	172	36	101			
	45	61	43	149	37	102			
	48	60	55	163	38	103			
-	56	61	48	165	39	104			
	1999-190.11	000,000.1	000.000	100000	Maile Contraction	105			
	61	57	49	107	40	106			
	40	43	33	121	41	107			
	09	10	61	152	42				
	50	40	57	153	44	100 Block of a			
	1000 00000 0000 0000000000000000000000	100.000	Contra Maria	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		All ages			
	52	63	55	170	45	All agos			
	51	47	50	148	48				

TABLE CLXIV .- STATISTICS ON WHICH SOUTH AFRICAN LIFE TABLE No. 2 IS BASED.

Age: Years

5,112 4,510 4,263 4,257 3,723

#### 

## TABEL CLXIV.-STATISTICS ON WHICH SOUTH AFRICAN LIFE TABLE No. 2 IS BASED (continued).

T GARTAGER GRAT		1026	Females.								
ch of 3 1927.	Years :	Population Census Figures Adjusted to 30/6/26.	Deat	Age : Years.							
1927.	Total.		1925.	1926.	1927.	Total.	- 4				
143	445	3,270	87	109	101	297	65				
117	334	2,836	67	86	79	232	66				
141	348	2,431	87	84	100	271	67				
135 119	361	2,307	80 76	92 90	101	- 273	68				
		2,002	10	50	00	204	09				
128	370	2,118	87	94	83	264	70				
110	317	1,755	65	84	78	227	71				
140	403	1,584	88	83	100	271	72				
122	300	1,580	87	91	107	285	73				
115	333	1,340	83	93	87	263	74				
125	362	1,281	111	84	86	281	75				
129	342	1,089	77	110	118	305	76				
123	300	926	67	84	90	241	77				
90	2//	792	62	92	68	222	78				
18	241	675	75	76	72	223	79				
70	223	618	66	81	62	209	80				
60	186	507	50	56	70	176	81				
67	184	445	48	38	56	142	82				
64	196	368	51	52	61	164	83				
54	184	292	59	65	51	175	84				
41	136	256	39	39	47	125	85				
28	91	188	37	52	36	125	86				
39	89	139	35	33	35	103	87				
28	79	113	19	20	23	62	88				
13	51	91	21	27	15	63	89				
13	51	67	20	13	18	51	90				
12	28	43	9	15	14	38	91				
4	14	38	14	12	15	41	92				
9	25	24	6	10	7	23	93				
5	13	18	7	2	7	16	94				
4	11	12	1	6	4	11	95				
2	4	14	5	3	6	14	96				
4	7	7.	. 6	3	3	12	97				
-	1	4	_	1	2	3	98				
2	4	2	1	- 15	1	2	99				
1	2	3	1			1	100				
1	3	2	1		3	4	101				
-	-		-	-	. 1	1	102				
-	1	1	2	-	TIP	2	103				
-	-	-	1	- 20		1	104				
	_	m	1		2	3	105				
_		2				_	106				
- 0981	121 -0.5	-	2			2	107				
9,456	27,286	820,084	6,659	6,962	7,170	20,791 {	All ages.				
0.0		-									

#### TABLE CLXV.—SOUTH AFRICAN LIFE TABLE No. 2. Value of Annuities and Single and Annual Premiums—4%.

Are.         Are. <t< th=""><th>M. 4</th><th></th><th colspan="5">MALES.</th><th>M. 4,</th><th colspan="8">. F. 4. FEMALES. F. 4</th></t<>	M. 4		MALES.					M. 4,	. F. 4. FEMALES. F. 4							
x         a_x         A_x         P_x         x         a_x         A_x         P_x         x         a_x         A_x         P_x           1         19-55         1971         00035         55         11-56         1971         00035         56         11-56         19761         00035         56         11-56         1971         00035         56         11-56         1976         11-56         1976         11-56         1976         11-56         1976         11-56         1976         11-56         1977         1976         1977         1976         1977	Age.			.550:	Age.		-	Anterior	Age.				Age.	-		
0         0x         xz         1x         0x         xz         xz         0x         xz         xz </th <th></th> <th></th> <th></th> <th>D</th> <th></th> <th></th> <th></th> <th>D</th> <th></th> <th></th> <th></th> <th>D</th> <th>1925</th> <th>1. Casta</th> <th></th> <th>D</th>				D				D				D	1925	1. Casta		D
0         19-55         1977         0004         55         11-58         -0005         0005         11-200         0005 <th< th=""><th>x</th><th>ax</th><th>Ax</th><th><math>P_x</math></th><th>x</th><th>ax</th><th>A<sub>x</sub></th><th><math>P_x</math></th><th>x</th><th>a<sub>x</sub></th><th>A<sub>x</sub></th><th><math>P_x</math></th><th>x</th><th>ax</th><th>A<sub>x</sub></th><th>P<sub>x</sub></th></th<>	x	ax	Ax	$P_x$	x	ax	A <sub>x</sub>	$P_x$	x	a <sub>x</sub>	A <sub>x</sub>	$P_x$	x	ax	A <sub>x</sub>	P <sub>x</sub>
0       19-363       19771       19085       0       2016       17.303       19885       65       19-369       47.31       00084       00         1       21-361       11310       00081       57       11365       00081       21-46       11365       00081       55       11-32       00101       0	200			T WT	-										1.8	100
1         1	0	19.859	·19771	·00948	55	11.818	·50701	·03955	0	20.416	·17630	·00823	55	12.699	·47311	·03454
5         1.000         1.003         0.0033         0.00         0.00333         0.00333         0.00333         0.00333         0.00333         0.00333         0.00333         0.00333         0.00333         0.00333         0.0033	1	21.315	•14174	•00635	57	11.105	•52005	•04149	1	21.655	•12867	·00568	56	12.378	·48546	•03629
4         21-901         13111         -00390         90         10-50         15310         -04901         1         1         10-20         52320         -02320           5         11-33         11-335         11-355         11-355         11-355         11-355         11-355         11-355         11-355         11-355         11-355	3	21 . 620	.13000	.00575	58	10.881	.54303	•04570	3	21.945	.11549	•00513	58	12.003	•49798	.03815
6         9         1-53 2         1-130 2         0-002 2         1-572 2         1-1302 2         0-012 2         1-1302 2         1-1302 2 <t< td=""><td>4</td><td>21.591</td><td>·13111</td><td>·00580</td><td>59</td><td>10.565</td><td>·55519</td><td>·04801</td><td>4</td><td>21.972</td><td>·11645</td><td>·00507</td><td>59</td><td>11.379</td><td>•52389</td><td>•04232</td></t<>	4	21.591	·13111	·00580	59	10.565	·55519	·04801	4	21.972	·11645	·00507	59	11.379	•52389	•04232
6       9       14.400       13844       0.0000       61       9-927       0.7774       0.0588       60       1.2177       0.0588       61       9-907       0.5888       0.058 <td>5</td> <td>21.533</td> <td>·13335</td> <td>·00592</td> <td>60</td> <td>10.247</td> <td>·56743</td> <td>·05045</td> <td>5</td> <td>21.930</td> <td>·11808</td> <td>·00515</td> <td>60</td> <td>11.029</td> <td>·53736</td> <td>·04467</td>	5	21.533	·13335	·00592	60	10.247	·56743	·05045	5	21.930	·11808	·00515	60	11.029	·53736	·04467
7         9         21-374         1444         -00623         62         0-405         -0021         -00535         67         21-78         -1277         -0053         63         9-994         -00537         63         9-994         -00537         63         9-994         -00537         63         9-994         -00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00543         00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00537         64         9-994         -00537         -00714         71         -1437         -00666         65         9-294         -00638         -0711         113         21-153         -14377         -00666         65         9-294         -06834         -0711         71         -1438         -00666         65         9-294         -06844         -07014         70         71         71         -0163         -00676         21         -01738         -01737         -017         -0183         -01737         -018	6	$21 \cdot 460$	·13616	·00606	61	9.927	·57974	·05306	6	21.861	·12072	·00528	61	10.671	·55111	·04722
b         1:2:10         1:1:11         -00:42         0.3         9:2:1         -00:43         -02:1         5         9:1:0:3         -00:50         0.64         9:3:0         -3:5:0:5         -00:50         0.64         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.65         9:3:0:5         -00:50         0.05         0:5:0:5         -00:50         0.05         0:5:0:5         0:5:0:5         0:5:0:5         0:5:0:5         0:5:0:5         1:5:0:5         0:5:0:5	7	21.374	•13945	•00623	62	9.605	•59212	·05583	7	21.782	·12377	·00543	62	10.310	•56500	·04996
0         1.1.0         1.1.0         0.000         0         0.4         0.4.00         0         2.1.98         1.1.08         1.0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.0000	8	21.278	•14314	•00642	63	9.281	·60458	•05881	8	21.693	•12717	·00560	63	9.950	·57886	•05287
10       21.002       -15.14       -00.087       65       8-025       -00282       -00544       10       21.490       -13.800       -00280       68       9-044       -00201       -00231         11       20.940       -16.071       66       8-233       -06331       112       21.277       -14.1477       -00643       67       8-600       -06324       -00214         14       20.953       -17.084       -00714       66       7.981       -06383       -07131       112       21.1417       -00643       67       8-600       -06324       -0714       -071       -0738       7.329       -0738       7.33       -06464       -0711       57       -0738       -733       6-604       -0711       57       -0738       -73       6-604       -0711       57       -0738       73       6-604       -071135       -00471       -07       -0738       -73       6-604       -071135       -0737       -0738       73       6-604       -0726       -0738       73       6-604       -071135       -00477       -1135       -00477       -1135       -00477       -1135       -07357       -1135       -07357       -1135       -07355       -1135       -07358	5	21.114	11110	00004	04	0.304	.01/13	.00200	9	21.998	.13086	•00579	64	9.994	•59255	.02293
11       20-944       -1601       -00711       60       8-230       -06224       00014       112       21:39       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1339       -1331       -00614       67       85:40       -06314       -00614       4111       21:45       -14:17       -00164       67       65:40       -06314       -0011	10	21.062	·15146	·00687	65	8.625	·62982	·06544	10	21.496	·13479	·00599	65	9.244	·60601	·05916
15         20-83         100.3         00.71         00.71         113         21-87         1131         -00666         65         7-838         -6684         -07718           14         20-88         -1703         -60808         -07718         13         21-427         -11437         -00666         68         7-878         -66848         -07718 <td< td=""><td>11</td><td>20.944</td><td>•15601</td><td>·00711</td><td>66</td><td>8.293</td><td>·64256</td><td>·06914</td><td>11</td><td>21.389</td><td>·13890</td><td>·00620</td><td>66</td><td>8.900</td><td>·61924</td><td>·06255</td></td<>	11	20.944	•15601	·00711	66	8.293	·64256	·06914	11	21.389	·13890	·00620	66	8.900	·61924	·06255
14         20.95         17034         0.079         69         7.299         6980         0.0711         14         21.165         1.0006         69         8.229         1.4438         0.0700           15         20.422         17100         0.0853         71         6.444         7000         0.0814         70         7.873         6.08517         0.8817         7.873         6.08517         0.8877         0.8817         0.8877         0.8877         0.8817         0.8877         0.885         0.98	12	20.820	•10078	.00737	67	7.961	.65533	•07313	12	21.277	•14317	·00643	67	8.560	•63231	·06614
1         1	14	20.558	17084	·00792	69	7.200	- 68080	•08203	13	21.103	·14757 •15208	•00666	68	8.220	•64538	•07000
15       90-423       -17609       -00833       70       6-970       -09346       -09701       15       20-927       -16665       -00714       70       7.532       -07138       -070371         17       20-141       -10884       -00833       71       6-433       -00809       17       20-637       -10606       -00706       72       6-411       -00842       -00817         18       10-909       11235       -00116       73       6-105       -77337       -10105       -0115       73       6-105       -77337       10076         19       19-76       -20933       -00141       76       5-142       77277       71737       -10108       -0029       1110       -00040       77       5-564       -77357       -10107         21       19-478       -20103       -01041       76       5-157       -77837       1135       -00041       75       5-564       -77675       -1297       -1315       -00041       78       5-027       -77819       11352         21       19-431       -21354       -01043       78       4-647       -77893       11352       -0113       58       4-443       -778937       13526			11001	00102	00	1 200	00000	00100	11	21 040	10200	.00090	09	1.010	.00014	.07410
10         20         22         1418         00030         14         00040         10         20         00160         11         7         7         15         00030         71         00160         71         71         11         00160         71         71         11         00160         71	15	20.422	•17609	·00822	70	6.970	· 69346	·08701	15	20.927	·15665	·00714	70	7.532	·67183	·07874
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10	20.282	18140	+00884	71	6.322	.70600	•09236	16	20.806	•16131	·00740	71	7.185	•68517	•08371
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	18	19.999	.19236	.00916	73	6.011	.73034	•10417	18	20.003	.17080	•00766	72	6,505	•09842	.08907
90         19-746         20081         75         5-427         7.5282         -11714         20         20-298         18084         -00849         75         5-876         7.3354         10087           21         19-576         2-20863         -010143         776         4-986         -77327         11318         22         20-029         10113         00099         77         5-364         -77357         12174           23         19-288         -21070         -01158         7727         141716         24         19-748         -20000         -000947         79         5-364         -77357         121746           24         19-748         -20170         -01158         80         4-134         80254         -16632         25         19-602         -20761         -01008         80         4-443         -78987         14447           25         18-578         -21343         -01248         83         3-303         -81044         -18912         226         19-402         -20761         -01008         83         4-443         -78987         14445           26         18-547         -23544         -01124         83         3-6117         53024         -775830	19	19.857	·19781	·00948	74	5.712	·74185	·11053	19	20.429	•17582	.00821	74	6.183	•72375	.10076
11       19-576       190-576       190-58       19100       21       201-55       11536       19100       19250       77       5-584       770575       11312         23       19-288       19120       01048       77       4*86       77327       11313       22       20-125       115396       10000       77       5*364       777357       12746         24       19-136       19120       01048       77       4*867       778279       114716       22       19-748       20000       77       5*364       777837       13756         25       18-978       23107       01159       80       4*134       80224       15632       23       10-602       20701       01008       80       4*443       77897       14575         26       18-978       23133       01120       83       3*381       82137       17746       23       19-300       21242       01008       83       4*176       9300       13:83       23:14       01138       84       3*366       83:06       13:161       12:356       12:356       12:356       12:356       12:356       12:356       12:356       12:356       12:356       12:356       12:356	20	19.716	·20322	·00981	75	5.427	.75282	.11714	20	20.298	.18084	.00840	75	5.876	.73554	.10607
22       19-44       -12409       -01048       77       4 + 496       -77272       -13118       22       20-29       -19119       -000041       78       5-027       79819       -12174         24       19-186       -22553       -01120       79       4 + 486       -77327       -14716       24       19-748       -20200       -00041       78       5-027       79819       -13558         25       18-978       -23162       -01150       80       4 + 134       -8024       +15632       25       19-002       -20761       -01043       80       4 + 478       -77939       +15475         25       18-443       -01245       82       3-631       -81187       +17746       22       19-300       -21345       -01043       81       4-786       -32904       +17814       -2053       -01118       83       3-617       +2343       -17863       -21464       -21464       -21454       -21464       -21454       -21464       -21454       -21454       -21454       -21454       -21454       -21454       -21454       -21454       -21464       -21464       -21454       -21454       -21454       -21454       -21454       -21454       -21454       -21454 <td>21</td> <td>19.576</td> <td>·20863</td> <td>·01014</td> <td>76</td> <td>5.155</td> <td>·76326</td> <td>.12400</td> <td>21</td> <td>20.165</td> <td>.18596</td> <td>.00879</td> <td>76</td> <td>5.584</td> <td>.74676</td> <td>.11342</td>	21	19.576	·20863	·01014	76	5.155	·76326	.12400	21	20.165	.18596	.00879	76	5.584	.74676	.11342
23       19-28       -12170       -00083       78       4-040       -73806       -13883       23       19-283       -00041       78       5-027       -76819       -13525         24       19-145       -2250       00074       79       4-785       -77893       -13552         25       18-673       -22574       01109       80       4-134       -8024       -15632       22       20761       01008       80       4-443       -77893       -13552         26       18-613       -23377       01201       81       3-881       -81228       -16642       26       019-53       -21944       01080       82       3-800       +1183       126605         28       18-433       -25143       -01224       83       3-806       +2329       20121       29       18-982       -23146       01158       84       3-366       +32061       -90054       19056         21       17-685       -27553       -01448       86       2-797       +8306       +2490       31       18-645       -24040       01123       86       2-602       +8608       -2370       -15368       87       2-780       +5462       -22760       +5462 <td< td=""><td>22</td><td>19.434</td><td>·21409</td><td>·01048</td><td>77</td><td>4.895</td><td>·77327</td><td>·13118</td><td>22</td><td>20.029</td><td>·19119</td><td>·00909</td><td>77</td><td>5.304</td><td>·75755</td><td>·12017</td></td<>	22	19.434	·21409	·01048	77	4.895	·77327	·13118	22	20.029	·19119	·00909	77	5.304	·75755	·12017
24         10-136         -22553         -01120         79         4 -387         -79279         -14716         24         10-748         -20200         -00974         79         4 -748         -77893         -13552           25         18-078         -23162         -01159         80         4-134         -80254         +16632         25         10-643         -20761         -01008         80         4-463         -78987         +14475           27         18-641         -24458         -01243         82         3-631         +22187         +17746         27         10-300         -21924         -01080         82         3-690         +1139         -10644           29         18-062         -025692         -01338         85         2-974         +84716         -21319         30         18-164         -01188         84         3-366         +32206         +21465           30         18-066         -025692         -01338         85         2-977         +53366         -24805         33         18-2648         -01336         84         2-2780         +5462         -22140           31         17-658         -23183         -01606         88         2-400         +8656 </td <td>23</td> <td><math>19 \cdot 288</math></td> <td>·21970</td> <td>·01083</td> <td>78</td> <td>4.640</td> <td>·78306</td> <td>·13883</td> <td>23</td> <td>19.890</td> <td>·19653</td> <td>·00941</td> <td>78</td> <td>5.027</td> <td>·76819</td> <td>·12746</td>	23	$19 \cdot 288$	·21970	·01083	78	4.640	·78306	·13883	23	19.890	·19653	·00941	78	5.027	·76819	·12746
25       18-078       -23102       -01159       80       4-134       -90254       -15432       25       19-022       -20761       -0103       80       4-463       -78987       -14457         27       18-061       -24458       -01245       82       3-631       -32187       -17746       27       19-300       -2124       -01038       81       4-463       -78987       -14457         28       18-463       -24458       -01245       82       3-631       +28187       -17746       27       19-300       -2124       -01038       81       4-463       -8094       -16475       -8094       -16475       -8094       -16475       -16475       -1118       83       3-617       -82243       -17814       -16426       -20121       -0118       83       3-617       -82243       -17814       -10248       -01138       84       3-617       -82433       -17814       -10124       -01138       84       3-164       -84061       -22445       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145       -2145 <td>24</td> <td>19.136</td> <td>·22553</td> <td>·01120</td> <td>79</td> <td>4.387</td> <td>•79279</td> <td>·14716</td> <td>24</td> <td>19.748</td> <td>·20200</td> <td>·00974</td> <td>79</td> <td>4.748</td> <td>•77893</td> <td>·13552</td>	24	19.136	·22553	·01120	79	4.387	•79279	·14716	24	19.748	·20200	·00974	79	4.748	•77893	·13552
26       18-813       -23707       -01021       81       3-881       -91228       -16642       226       19-453       -21335       -01043       81       4-176       -80004       -11475         27       18-648       -22418       -01292       82       3-363       68116       +1171       225       19-143       -22528       -01113       83       3-617       +82243       -17714         29       18-927       25644       -01143       84       3-167       +82243       -17814         29       18-988       -27353       -01448       86       2-1797       +83396       -22109       31       18-647       -22370       -01200       85       3-144       +84061       -20284         31       17-685       -228133       -01306       87       2-638       -86009       -22449       33       18-475       -25098       -01280       88       2-472       -86645       -22160         31       17-685       -22133       -01667       -24095       33       18-113       -26489       -01386       89       2-472       -86645       -22169         35       17-027       -29721       -01627       89       2-2517	25	18.978	·23162	·01159	80	4.134	·80254	·15632	25	19.602	·20761	·01008	80	4.463	·78987	.14457
27       18-641       -24458       -01245       82       3-631       -82187       -17746       27       19-300       -21924       -01080       82       3-800       -81193       -12005         28       18-643       -25144       -01292       83       3-303       -85104       -18018       28       19-143       -22525       -011118       83       3-617       -82243       -17614         29       18-966       -26502       -01333       85       2-974       -83950       -22144       -01158       84       3-366       -82243       -17645         30       18-966       -26502       -01333       85       2-974       -83950       -22445       32       18-445       -24490       0131       18-445       -24440       -01239       87       2-769       -85402       -22610         31       17-685       -28133       -01607       88       2-4607       -24606       34       18-113       -22608       -01336       88       2-472       -86645       -22404         35       17-065       -30519       -01677       89       2-351       -87111       -25008       36       17-730       -27240       -01433       91 <td< td=""><td>26</td><td>18.813</td><td>·23797</td><td>·01201</td><td>81</td><td>3.881</td><td>·81228</td><td>·16642</td><td>26</td><td>19.453</td><td>·21335</td><td>·01043</td><td>81</td><td>4.176</td><td>·80094</td><td>·15475</td></td<>	26	18.813	·23797	·01201	81	3.881	·81228	·16642	26	19.453	·21335	·01043	81	4.176	·80094	·15475
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	27	18.641	•24458	·01245	82	3.631	·82187	·17746	27	19.300	$\cdot 21924$	·01080	82	3.890	·81193	·16605
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	28	18.278	•25143	•01292	83	3.393	*83104	·18918	28	19.143	·22528	·01118	83	3.617	·82243	•17814
30       18-086       -22502       -01393       85       2-974       -58396       -22490       31       18-817       -23780       -01200       85       31-144       -84061       -20284         31       17-885       -2333       -01448       86       2-917       *53396       -22490       31       18-648       -24309       01243       86       2-961       *54662       -22610         33       17-885       -2333       -01607       89       2-490       86576       -24805       33       18-296       -25784       -01336       88       2-622       -86008       -23700         34       17-870       -29021       -01627       89       2-511       *57111       -22966       34       18-113       26489       01345       89       2-472       *6666       -24954         35       17-065       -30519       -01689       90       2-216       *57631       -27251       35       17-924       *2714       -01438       90       2-324       *8727       *3664         36       17-750       -29721       -01689       93       11790       *89287       332078       37       17-750       29750       -01150       92	20	10 210	20004	01341	04	5.112	.03937	•20121	29	18.982	•23146	·01158	84	3.300	•83206	.19056
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	30	18.086	·26592	·01393	85	2.974	·84716	·21319	30	18.817	·23780	·01200	85	3.144	·84061	·20284
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	31	17.888	•27353	·01448	86	2.797	•85396	•22490	31	18.648	·24430	·01243	86	2.951	·84805	·21465
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	33	17.085	•28133	•01565	88	2.038	·80008	•23643	32	18.475	•25098	·01289	87	2.780	•85462	·22610
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	34	17.273	·29721	·01627	89	2.351	·87111	·25996	34	18.290	·26489	·01336 ·01386	89	2.022	·86645	·23760 ·24954
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	35	17.065	.30519	•01689	90	2.916	.87631	.97951	25	17.094	.97014	01400	00	0.004	.07017	.00010
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	36	16.856	·31323	·01754	91	2.078	·88159	·28638	36	17.730	•27960	·01438	90	2.171	.87803	•27689
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	37	16.644	·32139	·01822	92	1.930	·88728	·30278	37	17.530	·28730	·01550	92	2.009	·88425	·29386
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	38	$16 \cdot 426$	·32976	.01892	93	1.790	·89268	·32000	38	17.324	·29524	·01611	93	1.855	·89017	·31177
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	39	16.201	·33842	·01967	94	1.656	·89782	·33805	39	17.110	·30345	·01676	94	1.709	·89577	·33064
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	40	15.967	·34741	·02047	95	1.529	·90269	·35696	40	16.889	·31195	·01744	95	1.571	·90108	·35046
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	41	15.726	·35670	·02133	96	1.409	·90729	·37670	41	16.661	·32075	·01816	96	1.441	·90607	·37123
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	42	15.994	·36625	•02223	97	1.295	·91162	·39724	42	16.424	·32983	·01893	97	1.317	·91078	·39301
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	44	13.224	-37598	·02317 ·02417	98	1.087	.91000	•41855	43	16.180	·33923	·01975	98	1.202	·91516	·41563
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		11 001	00001	02111	33	1.001	91939	.44004	44	19.927	•34890	•02062	99	1.094	•91921	•43905
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	45	14.707	-39590	·02521	100	·993	·92272	·46299	45	15.665	·35903	·02154	100	·992	·92291	·46334
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	40	14.443	·40606	•02629	101	· 903	·92560	•48639	46	15.395	·36942	·02253	101	·898	·92610	·48802
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	48	13.900	.42694	.02865	102	.823	.032740	-50888	47	15.118	·38009	·02358	102	·807	·92864	•51378
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	49	13.618	·43775	·02995	104	.680	·93539	·55678	48 49	14.833	·40218	·02470 ·02588	103	•645	·93363 ·93675	·54108 ·56961
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	50	13.330	.44883	.03132	105	.617	.03770	.57099	FO	14.047	. (1075		105		00071	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	51	13.036	•46016	·03279	106	.545	.94056	·60862	51	14.247	•41357	·02712	105	• 567	•93974	·59976
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	52	12.736	·47169	·03434	107	.465	.94366	·64418	52	13.640	•43692	02040	107	•426	•94516	·66288
<sup>54</sup> 12·126 ·49515 ·03772 109 - ·96154 ·96154 54 13·016 ·46091 ·03288 109 - ·96154 ·96154	53	12.432	·48337	·03598	108	·308	·94969	·72602	53	13.330	·44884	·03132	108	·289	·95043	·73737
	54	12.126	·49515	·03772	109	-	·96154	·96154	54	13.016	•46091	·03288	109		·96154	·96154

MALES. M. 41. Age. Age. x  $A_x$  $\mathbf{P}_{x}$  $a_x$ x  $a_x$  $\begin{array}{c} 11\cdot 285 \\ 11\cdot 001 \\ 10\cdot 715 \\ 10\cdot 426 \\ 10\cdot 134 \end{array}$ 55 56 57 58 59  $\cdot 17797$  $\cdot 12052$  $\cdot 10928$  $\cdot 10763$  $\cdot 10828$ ·00932 ·00590 •00528 ·00519 ·00523  $\begin{array}{c} 18\cdot 089 \\ 19\cdot 424 \\ 19\cdot 684 \\ 19\cdot 723 \\ 19\cdot 708 \end{array}$ 1 2 ·00533 ·00545 ·00561 ·00579 ·00599 9.8409.5449.2458.9438.638 $19.666 \\ 19.611 \\ 19.545 \\ 19.470 \\ 19.387$  $\cdot 11007$  $\cdot 11243$  $\cdot 11527$  $\cdot 11851$  $\cdot 12208$ 60 61 62 63 64 5 6 7 8  $\cdot 12595$  $\cdot 13006$  $\cdot 13439$  $\cdot 13891$  $\cdot 14360$ ·00621 ·00644 ·00669 ·00695 ·00722 65 66 67 68 69  $8 \cdot 329$  $8 \cdot 018$  $7 \cdot 706$  $7 \cdot 393$  $7 \cdot 080$  $19 \cdot 297 \\ 19 \cdot 202 \\ 19 \cdot 101 \\ 18 \cdot 996 \\ 18 \cdot 887$ 10 11 12 13 14  $6 \cdot 768$   $6 \cdot 458$   $6 \cdot 152$   $5 \cdot 854$   $5 \cdot 568$  $\begin{array}{c} 18 \cdot 775 \\ 18 \cdot 661 \\ 18 \cdot 544 \\ 18 \cdot 427 \\ 18 \cdot 310 \end{array}$  $\cdot 14843$  $\cdot 15337$  $\cdot 15839$  $\cdot 16344$  $\cdot 16846$ ·00751 ·00780 ·00810 ·00841 ·00872 70 71 72 73 74 15 16 17 18 19 ·00904 ·00935 ·00968 ·01001 ·01037  $5 \cdot 295$   $5 \cdot 035$   $4 \cdot 785$   $4 \cdot 540$   $4 \cdot 297$  $18.194 \\18.079 \\17.962 \\17.841 \\17.716$ ·17345 ·17842 ·18346 ·18865 ·19406 75 76 77 78 79 20 21 22 23 24  $4 \cdot 052$  $3 \cdot 807$  $3 \cdot 565$  $3 \cdot 333$  $3 \cdot 119$ ·01075 ·01115 ·01158 ·01203 ·01251 80 81 82 83 84 25 26 27 28 29  $\begin{array}{c} 17\cdot 584 \\ 17\cdot 446 \\ 17\cdot 301 \\ 17\cdot 151 \\ 16\cdot 994 \end{array}$ (19973)(20569)(21190)(21838)(22513)0.013020.013560.014120.014700.01530 $2 \cdot 925$  $2 \cdot 753$  $2 \cdot 598$  $2 \cdot 454$  $2 \cdot 318$ 30 31 32 33 34  $\begin{array}{c} 16\cdot 831 \\ 16\cdot 662 \\ 16\cdot 488 \\ 16\cdot 311 \\ 16\cdot 133 \end{array}$ 232162394424692254532621985 86 87 88 89 90 91 92 93 94  $2 \cdot 186$  $2 \cdot 052$  $1 \cdot 907$  $1 \cdot 769$  $1 \cdot 637$  $\begin{array}{c} 15 \cdot 955 \\ 15 \cdot 774 \\ 15 \cdot 591 \\ 15 \cdot 403 \\ 15 \cdot 207 \end{array}$ ·26990 ·27766 ·28555 ·29367 ·30211 ·01592 ·01655 ·01721 ·01790 ·01864 35 36 37 38 39 1.5121.3941.2821.1761.077 $\begin{array}{c} 15 \cdot 003 \\ 14 \cdot 791 \\ 14 \cdot 572 \\ 14 \cdot 349 \\ 14 \cdot 121 \end{array}$ ·31090 ·32002 ·32942 ·33905 ·34884 ·01943 ·02027 ·02115 ·02209 ·02307 95 96 97 98 99 40 41 42 43 44 ·35880 ·36891 ·37923 ·38979 ·40065 0241002517026310275102879100 101 102 103 104 ·984 ·895 ·816 ·744 ·675 45 46 47 48 49  $\begin{array}{c} 13\cdot 890 \\ 13\cdot 655 \\ 13\cdot 416 \\ 13\cdot 170 \\ 12\cdot 918 \end{array}$ ·613 ·542 ·462 ·307 030150316103315034790365150 51 52 53 54  $\begin{array}{c} 12 \cdot 659 \\ 12 \cdot 393 \\ 12 \cdot 121 \\ 11 \cdot 846 \\ 11 \cdot 567 \end{array}$  $\begin{array}{r}
 \cdot 41182 \\
 \cdot 42328 \\
 \cdot 43497 \\
 \cdot 44684 \\
 \cdot 45885 \end{array}$ 105 106 107 108 109

169

# TABLE CLXVI.—SOUTH AFRICAN LIFE TABLE No. 2. Value of Annuities and Single and Annual Premiums— $4\frac{10}{2}$ /o.

	M. $4\frac{1}{2}$ .	F. $4\frac{1}{2}$ .	FEMALES.									
						Age.						
		Age.			р	inger .	a	A	P.			
A <sub>x</sub>	$P_x$	x	$a_x$	$A_{\mathcal{X}}$	r x	J.	<sup>a</sup> x	x	- x			
15005	02924		18.558	.15778	.00807	55	12.098	·43596	·03328			
48320	•04026	1	19.692	·10895	·00527	56	11.806	·44853	·03502			
49553	·04230	2	19.964	·09726	·00464	57	11.510	$\cdot 46131$	·03688			
50797	·04446	3	20.024	·09467	·00450	58	11.205	·47441	•03887			
52053	·04675	4	20.012	·09518	·00453	59	10.892	•48790	.04103			
53320	.04919	5	19.984	·09636	·00459	60	10.569	·50179	•04337			
54597	.05178	6	19.933	•09857	·00471	61	10.239	• 51003	•04091			
55885	·05455	7	19.873	•10118	•00485	62	9.569	.54487	.05155			
57184	·05751	8	19.004	10739	.00518	64	9.237	·55915	·05462			
.98498	.00070	5	10 120	10100	00010							
59827	·06413	10	19.647	·11088	·00537	65	8.911	·57322	·05784			
61166	·06783	11	19.562	·11456	·00557	66	8.589	·58707	·06122			
62512	.07181	12	19.473	·11839	•00578	67	8.271	•60079	06865			
63859	·07609	13	19.381	•12234	•00600	60	7.901	·62842	•07283			
65206	·08070	14	19.701	-12040	00025	00	1 020					
66550	·08567	15	19.191	·13054	.00647	70	7.302	·64248	.07738			
67885	·09102	16	19.093	·13476	·00671	71	6.974	·65663	•08235			
69201	.09675	17	18.993	·13907	·00696	72	6.646	•67073	•08772			
70483	$\cdot 10283$	18	18.891	·14346	•00721	73	6.327	· 68490	.09342			
71716	·10919	19	18.787	·14795	.00748	74	0.019	.03115	00040			
72891	·11579	20	18.680	·15252	·00775	75	5.726	·71034	·10560			
74012	·12264	21	18.572	·15719	·00803	76	5.448	·72235	·11203			
75088	$\cdot 12980$	22	18.461	·16198	·00832	767	5.179	•73391	•11877			
76142	$\cdot 13743$	23	18.347	•16687	•00863	78	4.914	•74534	•12004			
.77192	·14574	24	$18 \cdot 230$	·17190	.00894	79	4.049	.12090	10400			
78246	·15488	25	18.110	·17707	·00927	80	4.371	·76871	·14312			
·79301	·16497	26	17.987	·18238	·00961	81	4.093	•78069	•15329			
·80343	·17600	27	17.860	·18783	•00996	82	3.810	.79201	17667			
·81340	·18772	28	17.730	.19344	•01033	84	3.308	·81451	.18909			
·82264	.19973	29	11.990	10010	01071	U.	0 000					
83097	·21170	30	$17 \cdot 459$	·20511	·01111	85	3.091	•82382	•20135			
83838	·22338	31	17.318	·21120	•01153	86	2.903	.83192	•21315			
84506	·23487	32	17.172	•21748	.01242	88	2.583	·84570	·23602			
85126	·24646	33	16.867	•22060	·01291	89	2.437	·85200	·24791			
00711	20002	01										
86280	$\cdot 27081$	35	16.708	·23747	·01341	90	2.292	•85825	-26073			
86858	·28462	36	16.543	•24457	•01394	91	2.143	.87140	-27514			
87482	•30097	37	16.372	•20191	.01400	92	1.833	.87799	.30991			
88076	·31813 ·33612	38 39	16.190	·26742	·01572	94	1.690	·88415	·32871			
				075.00	01/290	05	1.554	.88000	.34847			
89177	·35497	40	15.822	•27562	•01638	95	1.004	·89549	.36916			
89684	37463	41	15.410	.20207	.01784	97	1.304	·90068	.39087			
90162	• 39509	42	15.206	.30215	.01864	98	1.190	·90553	·41340			
91022	·43824	44	14.984	·31169	·01950	99	1.084	·91001	·43673			
	10050	15	14.754	.99160	.02041	100	.983	·91413	.46093			
91393	•46059	40	14.704	.33186	•02139	101	·890	·91770	•48551			
01027	•50620	40	14.270	.34244	·02243	102	·801	·92061	·51116			
92492	.53046	48	14.018	·35331	·02353	103	·720	·92593	·53834			
92788	·55399	49	13.759	·36445	·02469	104	·640	·92938	•56675			
93054	.57691	50	13.494	·37584	·02593	105	·563	·93270	.59675			
93361	.60554	51	13.224	·38747	$\cdot 02724$	106	·479	·93633	·63322			
93704	·64086	52	12.949	·39932	·02863	107	·423	·93871	·65951			
94374	·72228	53	12.669	·41136	·03009	108	·288	·94456	•73360			
95694	·95694	54	12.386	·42358	·03164	109	-	•95694	•95694			

EXPECTATION OF LIFE ( $e_x$ ), AND MORTALITY ( $d_x$ ) OF EUROPEAN MALES AND FEMALES AT EACH YEAR OF AGE. South African Life Tables, 1926 (No. 2).





### TABLE CLXVII.-SOUTH AFRICAN LIFE TABLE No. 2. VALUE OF ANNUITIES AND SINGLE AND ANNUAL PREMIUMS-5%.

170

M. 5. MALES.						M. 5.	F. 5.		FEMALES. F.						
Age.			int	Age.				Age.			Lang L	Age.			
x	a <sub>x</sub>	$A_x$	$P_x$	x	a <sub>x</sub>	$A_x$	$\mathbf{P}_x$	x	a <sub>x</sub>	A <sub>x</sub>	P <sub>x</sub>	x	ax	A <sub>x</sub>	P <sub>x</sub>
0	16.581	·16282	.00926	55	10.791	·43851	.03719	0	16.981	.14374	.00799	55	11.549	.40979	.02211
1	17.810	·10428	·00554	56	10.531	· 45090	·03910	1	18.025	.09407	·00494	56	11.277	•41538	·03383
2	18.057	•09253	·00486	57	10.268	·46344	·04113	2	18.280	·08190	·00425	57	11.006	·42829	·03567
3	18.100	·09046	·00474	58	10.002	·47611	·04328	3	18.343	·07890	·00408	58	10.727	·44156	·03765
4	18.095	.09070	.00475	59	9•732	·48894	·04556	4	18.340	·07904	·00409	59	10.439	·45528	·03980
5	18.066	·09209	·00483	60	9.460	·50190	·04798	5	18.324	·07983	·00413	60	10.141	·46947	·04214
6	18.025	·09405	·00494	61	9.185	·51502	·05057	6	18.285	·08164	·00423	61	9.835	·48404	.04467
7	17.974	·09649	•00509	62	8.906	·52826	·05332	7	$18 \cdot 239$	·08387	·00436	62	9.524	·49885	·04740
8	17.914	•09932	•00525	63	8.625	•54167	·05628	8	18.185	.08644	·00451	63	9.212	·51370	·05030
0	11.040	•10249	.00944	04	8.340	. 55525	.05945	9	18.125	·08930	·00467	64	8.903	·52843	·05336
10	17.775	·10595	.00564	65	8.050	·56903	·06287	10	18.060	·09239	.00485	65	8.598	.54297	.05657
11	17.697	·10966	·00586	66	7.758	·58296	·06656	11	17.991	·09567	·00504	66	8.296	.55731	.05995
12	17.615	·11358	·00610	67	7.463	·59698	·07054	12	17.919	·09910	·00524	67	7.997	·57155	·06352
13	17.528	•11770	·00635	68	7.168	·61105	·07481	13	17.844	·10265	·00545	68	7.697	·58585	·06736
14	17.438	•12198	•00662	69	6.872	·62516	·07942	14	17.768	·10630	·00566	69	7.393	·60033	·07153
15	17.346	·12640	·00689	76	6.575	·63926	.08439	15	17.689	.11004	.00580	70	7.094	.61504	.07809
16	17.250	·13093	·00717	71	6.281	·65331	·08973	16	17.609	.11384	.00612	71	6.779	.62088	.08104
17	17.154	·13554	·00747	72	5.989	·66719	·09546	17	17.528	.11773	.00635	72	6.461	•64470	.08641
18	17.056	·14019	·00776	73	5.705	·68073	·10153	18	17.444	·12171	·00660	73	6.157	·65921	•09211
19	16.959	·14480	·00806	74	5.431	·69377	·10788	19	17.359	·12577	·00685	74	5.863	·67317	·09808
20	16.863	·14937	.00836	75	5.169	.70623	·11448	20	17.972	.12002	.00711	75	5.594	. 89850	.10499
21	16.768	·15392	.00866	76	4.920	.71812	·12131	21	17.183	.13417	.00738	76	5.317	60020	110428
22	16.671	·15853	·00897	77	4.680	·72955	·12845	22	17.091	·13852	.00766	77	5.060	.71145	.11741
23	16.571	·16330	.00929	78	4.444	·74076	·13607	23	16.997	·14298	·00794	78	4.805	•72358	.12465
24	16.466	·16829	·00964	79	4.209	·75195	$\cdot 14436$	24	16.901	$\cdot 14758$	·00824	79	4.547	•73588	·13267
25	16.356	·17354	.01000	80	3.973	.76321	.15348	95	16.001	.15991	00050		1 000		11150
26	16.239	·17909	·01039	81	3.735	.77451	.16356	26	16.600	.15710	.00896	80	4.282	•74847	•14170
27	16.117	·18489	·01080	82	3.501	·78569	.17457	27	16.594	.16221	•00922	82	3.745	.77406	16214
28	15.990	·19097	·01124	83	3.275	·79641	·18628	28	16.485	·16738	.00957	83	3.487	.78632	.17523
29	15.856	·19734	·01171	84	3.067	·80635	·19828	29	16.373	$\cdot 17270$	$\cdot 00994$	84	3.251	•79759	·18764
30	15.716	·20399	·01220	85	2.878	.81539	.91093	20	10.050	17010	01000	0.5	0.040		1
31	15.571	·21090	.01273	86	2.711	.82331	•221025	30	16.120	.19295	•01033	85	3.040	·80761	·19990
32	15.421	·21803	·01328	87	2.559	·83051	.23334	32	16.016	.18070	.01115	80	2.807	*81034	•21106
33	$15 \cdot 269$	·22529	·01385	88	2.419	·83720	·24489	33	15.890	.19573	.01159	88	2.545	.83119	.22304
31	15.115	·23261	·01443	89	$2 \cdot 286$	$\cdot 84352$	·25670	34	15.758	·20198	·01205	89	2.402	·83798	•24630
35	14.960	·23998	.01504	90	2.157	.84066	.26014	95	15,000	00011	01054				
36	14.804	·24741	.01565	91	2.026	.85592	.28280	36	15.499	•20844	•01254	90	2.261	•84473	•25907
37	14.645	·25498	·01630	92	1.883	-86268	·29918	37	15.336	.22208	.01305	91	2.115	•85167	•27342
38	$14 \cdot 481$	·26280	·01698	93	1.748	·86913	·31628	38	15.185	•22930	-01339	92	1.909	.86611	•29028
39	14.310	·27094	·01770	94	1.619	·87526	$\cdot 33421$	39	15.027	·23683	·01478	94	1.671	·87281	· 32682
40	14.131	.97046	.01847	05	1.400	00110	05000								
41	13.945	•28834	.01929	90	1.380	·88110	• 35299	40	14.862	·24468	·01543	95	1.537	·87915	·34650
42	13.752	·29753	.02017	97	1.269	-80192	- 37238	41	14.690	•25286	·01612	96	1.411	·88514	·36712
43	13.554	· 30695	·02109	98	1.165	.89670	• 41419	44	14.995	• 20137	•01685	97	1.291	·89080	·38875
44	$13 \cdot 352$	·31656	·02206	99	1.067	·90123	·43595	44	14.130	·27952	·01705	98	1.179	.90099	·41119 ·43444
15	10 1/5										01011	00	1 0/4	50055	10111
40	13.147	• 32636	•02307	100	·976	·90531	·45822	45	$13 \cdot 927$	·28918	·01937	100	·975	· 90550	·45854
47	12.937	. 33633	•02413	101	·888	·90891	·48144	46	13.716	·29922	·02033	101	·883	·90944	·48302
48	12.503	.34003	.02525	102	.809	·91142	•50374	47	$13 \cdot 498$	·30961	·02136	102	·795	·91271	.50857
49	12.276	-36782	.02044	103	.738	•91725	•52781	48	13.273	·32032	·02244	103	•715	·91836	·53563
	210	00102	02111	104	.010	.92048	. 55123	49	13.042	·33133	·02360	104	·635	·92213	• 56391
50	12.042	·37896	·02906	105	·609	·92340	·57403	50	12.805	·34262	.02482	105	.550	.92576	.50970
51	11.801	·39043	·03050	106	·538	·92675	·60249	51	12.562	·35418	.02612	106	• 476	.92073	-63000
52	11.554	•40217	·03203	107	•459	·93050	·63758	52	12.314	·36599	·02749	107	•421	·93234	·65617
54	11.040	•41412	·03366	108	· 305	·93785	·71858	53	12.061	·37803	·02894	108	·286	·93875	.72987
01	11.049	• 42624	.03538	109		·95238	·95238	54	11.804	·39027	·03048	109		·95238	·95238
		1		1	Sector and the sector			-				Y	A Providence of the local sector		

AGES IN SINGLE YEARS

Graph LXXIII.

#### 171



Graph LXXIV.



PROBABILITY OF DEATH PER 1,000 MALES  $(1,000q_x)$ , AND SURVIVORS OF 1,000,000 MALES BORN  $(\ell_x)$  AT EACH YEAR OF AGE.

PROBABILITY OF DEATH PER 1,000 FEMALES  $(1,000q_x)$ , AND SURVIVORS OF 1,000,000 FEMALES BORN  $(l_x)$  AT EACH YEAR OF AGE.

172

AGES IN SINGLE YEARS Graph LXXV.

173