



# Abridged Life Tables

## Constructed From SSHHS 2010

National Bureau of Statistics  
October, 2014

## Preface

This is the second set of life tables constructed by National Bureau of Statistics. It utilized data collected in the SSHHS II which was conducted in 2010. These are abridged life tables constructed for each sex. These are very important tables because they assist in monitoring progress in achieving MDGs.

The construction of the tables applied indirect techniques. The input data were childhood and adulthood survivorship probabilities. The childhood survivorship probabilities were got from children ever born and children surviving data while adulthood survivorship probabilities were got from parental survivorship data. These were linked using the logit system using the fact that the logits of survivorship probabilities in the same family are linearly related. The general standard proposed by Brass was used to estimate the parameters of the relation which are used in the construction of the complete set of survivorship probabilities used in the construction of the life tables.

It is the hope of the Bureau that the planners especially for the Ministry of Health both at GRoSS and the state levels will use these indicators in setting targets so as to improve quality of life of the people of South Sudan.



Isaiah Chol Aruai  
**Chairperson, NBS**

## Table of Contents

Preface .....	2
Table of Contents .....	3
Lists of Tables .....	4
1.0 Introduction .....	5
2.0 Estimation of the parameters .....	5
3.0 Construction of the life tables.....	5
4.0 The layout of the tables .....	6
References .....	29

## Lists of Tables

Table 1: Abridged life table, South Sudan, Males .....	7
Table 2: Abridged life table, Upper Nile, Males .....	8
Table 3: Abridged life table, Jonglei, Males .....	9
Table 4: Abridged life table, Unity, Males.....	10
Table 5: Abridged life table, Warrap, Males .....	11
Table 6: Abridged life table, Northern Bahr el Ghazal, Males .....	12
Table 7: Abridged life table, Western Bahr el Ghazal, Males .....	13
Table 8: Abridged life table, Lakes, Males .....	14
Table 9: Abridged life table, Western Equatoria, Males.....	15
Table 10: Abridged life table, Central Equatoria, Males.....	16
Table 11: Abridged life table, Eastern Equatoria, Males .....	17
Table 12: Abridged life table, South Sudan, Females .....	18
Table 13: Abridged life table, Upper Nile, Females .....	19
Table 14: Abridged life table, Jonglei, Females.....	20
Table 15: Abridged life table, Unity, Females .....	21
Table 16: Abridged life table, Warrap, Females .....	22
Table 17: Abridged life table, Northern Bahr el Ghazal, Females.....	23
Table 18: Abridged life table, Western Bahr el Ghazal, Females.....	24
Table 19: Abridged life table, Lakes, Females.....	25
Table 20: Abridged life table, Western Equatoria, Females .....	26
Table 21: Abridged life table, Central Equatoria, Females .....	27
Table 22: Abridged life table, Eastern Equatoria, Females .....	28

## 1.0 Introduction

These are the second life table constructed for South Sudan. They are constructed from mortality estimates from SSHHS 2010. The survivorship probabilities were obtained from Children Ever Born (CEB) and Children Surviving (CS) data using North Model coefficients. The adulthood survivorship probabilities were obtained from the parental survivorship data. For females, a regression techniques was used to obtain the adult survivorship from birth ( $l(25+n)$ ) using North Model coefficients. For males, conditional probabilities  $\frac{l(x)}{l(y)}$  were obtained also using North Model coefficients. The continuation of using the regression technique was to facilitate comparison with the construction from Census 2008.

## 2.0 Estimation of the parameters

It is known that the logits of survivorship probabilities within the same family are linearly related and one of them can be taken as a standard. This was the basis for interpolation and extrapolation of the complete  $l(x)$  values. The process utilized the general standard logit transformation proposed by Brass which is reproduced in Table 2 in Chapter 1 of Manual X. The logits are got from  $\lambda(x)=\text{logit}(1-l(x))$  and is given by  $\lambda(x)=0.5\ln\frac{(1-l(x))}{l(x)}$ .

For females, these  $\lambda(x)$  were plotted against the standard  $\lambda_s(x)$  to obtain  $\alpha$  and  $\beta$ , the intercept and the slope of the graph. There were used to smoothen and interpolate the  $l(x)$  used in the construction of the life tables. For males, the conditional survivorship probabilities derived from parental survivorship were used. In this case, there is no direct method of linking the childhood probabilities which measures survival from birth to conditional probabilities in adulthood which gives probability of living to a certain age given that the person has already lived a number of years. But in the two-parameter life table system, any pair of survivorship probabilities, one from birth and another conditional on attaining a certain age uniquely determine values of the parameters  $\alpha$  and  $\beta$  defining the life table in the system. For linking method, the logit for the childhood probabilities were equated to the  $\lambda_s(z)$  using the relation  $\lambda(x) = \alpha + \beta\lambda_s(x)$  to estimate  $\alpha$  and  $\beta$  and the  $l(y)$  and therefore  $l(x)$  from  $\frac{l(x)}{l(y)}$  values. This was done iteratively because one could not directly get the values of  $\alpha$  and  $\beta$ .

The iteration was continued until the values of  $\alpha$  and  $\beta$  were stable up to six decimal places. The parameters are then substituted in  $l(x) = \frac{1}{[1+EXP(2\alpha+2\beta\lambda_s(x))]}$  to obtain  $l(x)$ .

## 3.0 Construction of the life tables

The traditional life table begins with the population  $nP_x$  and the number of deaths  $nD_x$  observed in a particular age group. Age specific death rates (ASDRs) are calculated using  $nM_x = \frac{nD_x}{nP_x}$ . From these the age specific mortality rates (ASMRs) are calculated using  $nq_x = \frac{nD_x}{nP_x + \frac{1}{2}nD_x}$ . If we divide the numerator and the denominator by  $P_x$ , we get  $nq_x = \frac{2.nM_x}{2+nM_x}$ . From this one can get  $l_x$ .

In our situation, we began with the survivorship probabilities ( $l_x$ ). These are the probabilities of surviving from birth to exact age  $x$ . The 1.00000 is called the radix. We may regard this as the number

of persons living at the beginning of the indicated age (x) out of the total number of births assumed as the radix.

$nd_x$  is the expected number of persons who would die in the age interval. We can get this number from  $nd_x = l_x - l_{x+n}$  where n is the number of years in the age group.

The mortality rates,  $nq_x$  is the proportion of the persons in the cohort alive at the beginning of the age group who will die before reaching the end of the age group. It is got by dividing the number dead in the age group by the number of survivors at exact age x

$$nq_x = \frac{nd_x}{l_x}$$

$nL_x$  is the expected number of person years that would be lived within the indicated age group out of the total number of births assumed in the table.  $nL_x$  are got by averaging the number of survivors.

$$nL_x = \frac{n}{2}(l_x + l_{x+n})$$

This is used for ages 5-9 and above. For the first two age groups, there are slight adjustments to take care of the assumption of non-linearity of deaths over the years. For the first age group, we used

$$1L_0 = 0.3l_0 + 0.7l_1$$

And for the second age group, we used

$$4L_1 = 1.3l_1 + 2.7l_4$$

The expected total number of years lived from age x to the oldest age,  $T_x$  is got by summing up all the person years lived from age x to the oldest age.  $T_x = \sum_x^{\omega} nL_x$  where  $\omega$  is oldest age.

The life expectancy ( $e_x^0$ ), the average number of years left to live for a person aged x, is got from

$$e_x^0 = \frac{T_x}{l_x}$$

#### 4.0 The layout of the tables

The presentation of the life tables starts with the national level tables and begins with the male tables.

The order is:

- South Sudan
- Upper Nile
- Jonglei
- Unity
- Warrap
- Northern Bahr el Ghazal
- Western Bahr el Ghazal
- Lakes
- Western Equatoria
- Central Equatoria
- Eastern Equatoria

Table 1: Abridged life table, South Sudan, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.08089	0.08089	1.00000	0.94338	54.43076	54.43
1-4	0.04969	0.05406	0.91911	3.54230	53.48739	58.19
5-9	0.01228	0.01412	0.86943	4.31644	49.94509	57.45
10-14	0.00929	0.01083	0.85715	4.26254	45.62865	53.23
15-19	0.01568	0.01849	0.84786	4.20012	41.36612	48.79
20-24	0.02129	0.02558	0.83218	4.10770	37.16600	44.66
25-29	0.02185	0.02695	0.81090	3.99985	33.05829	40.77
30-34	0.02275	0.02883	0.78904	3.88835	29.05844	36.83
35-39	0.02540	0.03315	0.76630	3.76798	25.17010	32.85
40-44	0.02922	0.03943	0.74090	3.63144	21.40212	28.89
45-49	0.03737	0.05251	0.71168	3.46498	17.77068	24.97
50-54	0.04721	0.07001	0.67431	3.25353	14.30570	21.22
55-59	0.06189	0.09869	0.62710	2.98078	11.05217	17.62
60-64	0.08120	0.14366	0.56521	2.62306	8.07140	14.28
65-69	0.10320	0.21322	0.48401	2.16206	5.44834	11.26
70-74	0.12057	0.31661	0.38081	1.60264	3.28628	8.63
75-79	0.11912	0.45774	0.26024	1.00340	1.68365	6.47
80-84	0.08809	0.62421	0.14112	0.48537	0.68025	4.82
85-89	0.04163	0.78505	0.05303	0.16108	0.19487	3.67
90-94	0.01034	0.90701	0.01140	0.03115	0.03380	2.96
95-99	0.00106	1.00000	0.00106	0.00265	0.00265	2.50

Table 2: Abridged life table, Upper Nile, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.07191	0.07191	1.00000	0.94966	54.25096	54.25
1-4	0.04901	0.05281	0.92809	3.58002	53.30130	57.43
5-9	0.01239	0.01410	0.87908	4.36441	49.72127	56.56
10-14	0.00944	0.01089	0.86669	4.30984	45.35687	52.33
15-19	0.01604	0.01871	0.85725	4.24614	41.04703	47.88
20-24	0.02197	0.02612	0.84121	4.15110	36.80089	43.75
25-29	0.02276	0.02779	0.81923	4.03926	32.64978	39.85
30-34	0.02388	0.02998	0.79647	3.92266	28.61052	35.92
35-39	0.02685	0.03476	0.77259	3.79582	24.68786	31.95
40-44	0.03164	0.04242	0.74574	3.64960	20.89204	28.02
45-49	0.03946	0.05526	0.71410	3.47186	17.24245	24.15
50-54	0.05079	0.07528	0.67464	3.24625	13.77059	20.41
55-59	0.06674	0.10698	0.62386	2.95243	10.52434	16.87
60-64	0.08732	0.15673	0.55712	2.56728	7.57191	13.59
65-69	0.10955	0.23318	0.46980	2.07512	5.00463	10.65
70-74	0.12415	0.34461	0.36025	1.49088	2.92951	8.13
75-79	0.11603	0.49144	0.23610	0.89044	1.43862	6.09
80-84	0.07889	0.65700	0.12007	0.40315	0.54818	4.57
85-89	0.03338	0.81043	0.04118	0.12248	0.14503	3.52
90-94	0.00720	0.92228	0.00781	0.02104	0.02255	2.89
95-99	0.00061	1.00000	0.00061	0.00152	0.00152	2.50



Table 3: Abridged life table, Jonglei, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.04772	0.04772	1.00000	0.96659	54.69102	54.69
1-4	0.04311	0.04527	0.95228	3.69272	53.72442	56.42
5-9	0.01172	0.01289	0.90917	4.51655	50.03170	55.03
10-14	0.00911	0.01016	0.89745	4.46447	45.51515	50.72
15-19	0.01585	0.01784	0.88834	4.40206	41.05069	46.21
20-24	0.02237	0.02564	0.87249	4.30652	36.64862	42.00
25-29	0.02389	0.02811	0.85012	4.19087	32.34210	38.04
30-34	0.02576	0.03118	0.82623	4.06672	28.15123	34.07
35-39	0.02972	0.03713	0.80046	3.92801	24.08451	30.09
40-44	0.03588	0.04655	0.77074	3.76401	20.15650	26.15
45-49	0.04581	0.06233	0.73486	3.55980	16.39249	22.31
50-54	0.06020	0.08737	0.68906	3.29478	12.83269	18.62
55-59	0.08026	0.12764	0.62885	2.94361	9.53791	15.17
60-64	0.10490	0.19123	0.54859	2.48069	6.59430	12.02
65-69	0.12744	0.28724	0.44369	1.89982	4.11361	9.27
70-74	0.13264	0.41943	0.31624	1.24961	2.21379	7.00
75-79	0.10596	0.57712	0.18360	0.65310	0.96418	5.25
80-84	0.05709	0.73533	0.07764	0.24547	0.31108	4.01
85-89	0.01783	0.86760	0.02055	0.05817	0.06560	3.19
90-94	0.00260	0.95389	0.00272	0.00712	0.00743	2.73
95-99	0.00013	1.00000	0.00013	0.00031	0.00031	2.50

Table 4: Abridged life table, Unity, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.05016	0.05016	1.00000	0.96489	60.03934	60.04
1-4	0.03480	0.03664	0.94984	3.70540	59.07445	62.19
5-9	0.00894	0.00977	0.91504	4.55285	55.36905	60.51
10-14	0.00684	0.00755	0.90610	4.51340	50.81620	56.08
15-19	0.01173	0.01304	0.89926	4.46698	46.30280	51.49
20-24	0.01625	0.01831	0.88753	4.39703	41.83583	47.14
25-29	0.01707	0.01959	0.87128	4.31373	37.43880	42.97
30-34	0.01817	0.02127	0.85421	4.22563	33.12508	38.78
35-39	0.02078	0.02486	0.83604	4.12825	28.89945	34.57
40-44	0.02497	0.03063	0.81526	4.01388	24.77120	30.38
45-49	0.03193	0.04040	0.79029	3.87163	20.75733	26.27
50-54	0.04247	0.05600	0.75836	3.68563	16.88570	22.27
55-59	0.05834	0.08149	0.71589	3.43360	13.20008	18.44
60-64	0.08117	0.12344	0.65755	3.08483	9.76648	14.85
65-69	0.11075	0.19215	0.57638	2.60503	6.68165	11.59
70-74	0.13986	0.30037	0.46563	1.97850	4.07663	8.76
75-79	0.14793	0.45409	0.32577	1.25903	2.09813	6.44
80-84	0.11291	0.63490	0.17784	0.60693	0.83910	4.72
85-89	0.05201	0.80102	0.06493	0.19463	0.23218	3.58
90-94	0.01187	0.91873	0.01292	0.03493	0.03755	2.91
95-99	0.00105	1.00000	0.00105	0.00263	0.00263	2.50

Table 5: Abridged life table, Warrap, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.12669	0.12669	1.00000	0.91132	46.58526	46.59
1-4	0.07162	0.08201	0.87331	3.29987	45.67394	52.30
5-9	0.01704	0.02126	0.80169	3.96586	42.37407	52.86
10-14	0.01273	0.01622	0.78465	3.89144	38.40821	48.95
15-19	0.02117	0.02743	0.77192	3.80669	34.51678	44.72
20-24	0.02813	0.03747	0.75075	3.68343	30.71009	40.91
25-29	0.02817	0.03898	0.72262	3.54267	27.02666	37.40
30-34	0.02858	0.04116	0.69445	3.40079	23.48399	33.82
35-39	0.03107	0.04666	0.66587	3.25166	20.08319	30.16
40-44	0.03527	0.05556	0.63480	3.08583	16.83153	26.51
45-49	0.04217	0.07034	0.59953	2.89222	13.74570	22.93
50-54	0.05166	0.09268	0.55736	2.65764	10.85348	19.47
55-59	0.06401	0.12657	0.50570	2.36849	8.19584	16.21
60-64	0.07818	0.17699	0.44169	2.01303	5.82735	13.19
65-69	0.09095	0.25020	0.36352	1.59021	3.81432	10.49
70-74	0.09595	0.35202	0.27257	1.12296	2.22411	8.16
75-79	0.08547	0.48390	0.17662	0.66942	1.10115	6.23
80-84	0.05805	0.63683	0.09115	0.31064	0.43173	4.74
85-89	0.02609	0.78807	0.03310	0.10030	0.12110	3.66
90-94	0.00636	0.90706	0.00702	0.01917	0.02080	2.96
95-99	0.00065	1.00000	0.00065	0.00163	0.00163	2.50

Table 6: Abridged life table, Northern Bahr el Ghazal, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.17581	0.17581	1.00000	0.87693	45.32499	45.32
1-4	0.07218	0.08757	0.82419	3.10189	44.44806	53.93
5-9	0.01615	0.02148	0.75202	3.71969	41.34616	54.98
10-14	0.01187	0.01613	0.73586	3.64963	37.62647	51.13
15-19	0.01942	0.02682	0.72399	3.57142	33.97684	46.93
20-24	0.02524	0.03582	0.70458	3.45978	30.40542	43.15
25-29	0.02474	0.03641	0.67934	3.33484	26.94564	39.66
30-34	0.02465	0.03765	0.65460	3.21138	23.61080	36.07
35-39	0.02636	0.04185	0.62995	3.08385	20.39942	32.38
40-44	0.02950	0.04888	0.60359	2.94418	17.31556	28.69
45-49	0.03485	0.06070	0.57408	2.78330	14.37138	25.03
50-54	0.04229	0.07843	0.53924	2.59045	11.58808	21.49
55-59	0.05224	0.10511	0.49694	2.35413	8.99763	18.11
60-64	0.06435	0.14471	0.44471	2.06266	6.64350	14.94
65-69	0.07716	0.20285	0.38035	1.70889	4.58084	12.04
70-74	0.08691	0.28664	0.30320	1.29873	2.87196	9.47
75-79	0.08708	0.40260	0.21629	0.86376	1.57323	7.27
80-84	0.07109	0.55015	0.12921	0.46834	0.70948	5.49
85-89	0.04139	0.71210	0.05813	0.18715	0.24113	4.15
90-94	0.01431	0.85485	0.01673	0.04791	0.05398	3.23
95-99	0.00243	1.00000	0.00243	0.00607	0.00607	2.50

Table 7: Abridged life table, Western Bahr el Ghazal, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.08458	0.08458	1.00000	0.94079	53.68804	53.69
1-4	0.05163	0.05640	0.91542	3.52227	52.74724	57.62
5-9	0.01272	0.01472	0.86379	4.28714	49.22497	56.99
10-14	0.00961	0.01129	0.85107	4.23131	44.93783	52.80
15-19	0.01621	0.01926	0.84146	4.16677	40.70652	48.38
20-24	0.02196	0.02662	0.82525	4.07133	36.53976	44.28
25-29	0.02250	0.02801	0.80328	3.96017	32.46842	40.42
30-34	0.02337	0.02993	0.78078	3.84549	28.50825	36.51
35-39	0.02603	0.03437	0.75741	3.72198	24.66276	32.56
40-44	0.03039	0.04155	0.73138	3.58093	20.94078	28.63
45-49	0.03755	0.05357	0.70099	3.41108	17.35986	24.76
50-54	0.04790	0.07220	0.66344	3.19746	13.94878	21.02
55-59	0.06246	0.10147	0.61554	2.92157	10.75132	17.47
60-64	0.08137	0.14711	0.55308	2.56201	7.82975	14.16
65-69	0.10248	0.21725	0.47172	2.10239	5.26775	11.17
70-74	0.11842	0.32070	0.36924	1.55015	3.16536	8.57
75-79	0.11562	0.46097	0.25082	0.96506	1.61520	6.44
80-84	0.08462	0.62591	0.13520	0.46444	0.65015	4.81
85-89	0.03973	0.78558	0.05058	0.15355	0.18570	3.67
90-94	0.00984	0.90711	0.01084	0.02963	0.03215	2.96
95-99	0.00101	1.00000	0.00101	0.00252	0.00252	2.50

Table 8: Abridged life table, Lakes, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.06684	0.06684	1.00000	0.95321	55.60356	55.60
1-4	0.04554	0.04880	0.93316	3.60970	54.65035	58.56
5-9	0.01155	0.01301	0.88763	4.40926	51.04064	57.50
10-14	0.00880	0.01005	0.87608	4.35838	46.63138	53.23
15-19	0.01499	0.01728	0.86727	4.29890	42.27300	48.74
20-24	0.02058	0.02415	0.85229	4.20997	37.97410	44.56
25-29	0.02139	0.02571	0.83170	4.10505	33.76413	40.60
30-34	0.02251	0.02778	0.81032	3.99532	29.65907	36.60
35-39	0.02541	0.03225	0.78781	3.87553	25.66375	32.58
40-44	0.03007	0.03944	0.76240	3.73683	21.78823	28.58
45-49	0.03772	0.05151	0.73233	3.56736	18.05139	24.65
50-54	0.04892	0.07043	0.69461	3.35077	14.48403	20.85
55-59	0.06496	0.10061	0.64569	3.06606	11.13326	17.24
60-64	0.08623	0.14848	0.58073	2.68808	8.06720	13.89
65-69	0.11033	0.22311	0.49450	2.19669	5.37912	10.88
70-74	0.12824	0.33380	0.38417	1.60027	3.18243	8.28
75-79	0.12338	0.48208	0.25594	0.97122	1.58216	6.18
80-84	0.08627	0.65087	0.13255	0.44708	0.61094	4.61
85-89	0.03735	0.80716	0.04628	0.13801	0.16386	3.54
90-94	0.00822	0.92067	0.00892	0.02408	0.02585	2.90
95-99	0.00071	1.00000	0.00071	0.00177	0.00177	2.50

Table 9: Abridged life table, Western Equatoria, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.08632	0.08632	1.00000	0.93958	52.96054	52.96
1-4	0.05342	0.05846	0.91368	3.51051	52.02096	56.94
5-9	0.01317	0.01531	0.86027	4.26840	48.51045	56.39
10-14	0.00996	0.01176	0.84709	4.21057	44.24205	52.23
15-19	0.01679	0.02006	0.83713	4.14369	40.03149	47.82
20-24	0.02275	0.02774	0.82034	4.04482	35.88780	43.75
25-29	0.02330	0.02921	0.79759	3.92969	31.84298	39.92
30-34	0.02418	0.03123	0.77429	3.81099	27.91329	36.05
35-39	0.02691	0.03587	0.75011	3.68326	24.10230	32.13
40-44	0.03136	0.04337	0.72320	3.53758	20.41904	28.23
45-49	0.03868	0.05590	0.69183	3.36248	16.88147	24.40
50-54	0.04918	0.07529	0.65316	3.14286	13.51898	20.70
55-59	0.06382	0.10566	0.60398	2.86037	10.37613	17.18
60-64	0.08253	0.15279	0.54017	2.49449	7.51576	13.91
65-69	0.10282	0.22467	0.45763	2.03112	5.02126	10.97
70-74	0.11695	0.32959	0.35482	1.48172	2.99014	8.43
75-79	0.11183	0.47012	0.23787	0.90979	1.50842	6.34
80-84	0.07986	0.63360	0.12604	0.43057	0.59864	4.75
85-89	0.03653	0.79092	0.04618	0.13960	0.16807	3.64
90-94	0.00879	0.91021	0.00966	0.02631	0.02847	2.95
95-99	0.00087	1.00000	0.00087	0.00217	0.00217	2.50

Table 10: Abridged life table, Central Equatoria, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.10182	0.10182	1.00000	0.92873	54.56989	54.57
1-4	0.05060	0.05634	0.89818	3.45611	53.64116	59.72
5-9	0.01197	0.01413	0.84758	4.20798	50.18504	59.21
10-14	0.00895	0.01071	0.83561	4.15568	45.97706	55.02
15-19	0.01492	0.01805	0.82666	4.09599	41.82138	50.59
20-24	0.01993	0.02455	0.81174	4.00886	37.72539	46.47
25-29	0.02012	0.02541	0.79181	3.90873	33.71653	42.58
30-34	0.02064	0.02675	0.77169	3.80682	29.80780	38.63
35-39	0.02275	0.03029	0.75104	3.69836	26.00097	34.62
40-44	0.02629	0.03610	0.72830	3.57577	22.30262	30.62
45-49	0.03222	0.04589	0.70201	3.42950	18.72685	26.68
50-54	0.04084	0.06098	0.66979	3.24685	15.29735	22.84
55-59	0.05318	0.08455	0.62895	3.01179	12.05050	19.16
60-64	0.06984	0.12130	0.57577	2.70423	9.03871	15.70
65-69	0.09030	0.17848	0.50593	2.30388	6.33448	12.52
70-74	0.11051	0.26588	0.41563	1.80187	4.03060	9.70
75-79	0.11974	0.39244	0.30512	1.22625	2.22872	7.30
80-84	0.10294	0.55527	0.18538	0.66955	1.00247	5.41
85-89	0.06000	0.72777	0.08244	0.26222	0.33292	4.04
90-94	0.01952	0.86995	0.02244	0.06340	0.07070	3.15
95-99	0.00292	1.00000	0.00292	0.00730	0.00730	2.50



Table 11: Abridged life table, Eastern Equatoria, Males

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.10498	0.10498	1.00000	0.92652	54.12497	54.12
1-4	0.05166	0.05772	0.89502	3.44060	53.19845	59.44
5-9	0.01219	0.01446	0.84336	4.18631	49.75786	59.00
10-14	0.00911	0.01095	0.83117	4.13307	45.57154	54.83
15-19	0.01517	0.01845	0.82206	4.07239	41.43848	50.41
20-24	0.02023	0.02507	0.80689	3.98391	37.36608	46.31
25-29	0.02039	0.02592	0.78667	3.88236	33.38218	42.43
30-34	0.02089	0.02726	0.76627	3.77916	29.49982	38.50
35-39	0.02298	0.03083	0.74539	3.66949	25.72066	34.51
40-44	0.02652	0.03671	0.72241	3.54574	22.05118	30.52
45-49	0.03243	0.04661	0.69589	3.39836	18.50544	26.59
50-54	0.04102	0.06183	0.66345	3.21471	15.10708	22.77
55-59	0.05327	0.08558	0.62243	2.97898	11.89237	19.11
60-64	0.06972	0.12249	0.56916	2.67152	8.91339	15.66
65-69	0.08976	0.17973	0.49945	2.27282	6.24186	12.50
70-74	0.10935	0.26692	0.40968	1.77503	3.96904	9.69
75-79	0.11798	0.39284	0.30033	1.20669	2.19401	7.31
80-84	0.10116	0.55475	0.18235	0.65884	0.98732	5.41
85-89	0.05900	0.72666	0.08119	0.25846	0.32848	4.05
90-94	0.01928	0.86897	0.02219	0.06275	0.07002	3.16
95-99	0.00291	1.00000	0.00291	0.00727	0.00727	2.50

Table 12: Abridged life table, South Sudan, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.06452	0.06452	1.00000	0.95484	54.47603	54.48
1-4	0.04739	0.05066	0.93548	3.61397	53.52119	57.21
5-9	0.01221	0.01374	0.88809	4.40995	49.90722	56.20
10-14	0.00934	0.01067	0.87589	4.35608	45.49727	51.94
15-19	0.01597	0.01843	0.86654	4.29278	41.14119	47.48
20-24	0.02205	0.02592	0.85057	4.19773	36.84841	43.32
25-29	0.02302	0.02778	0.82852	4.08506	32.65068	39.41
30-34	0.02432	0.03019	0.80550	3.96672	28.56562	35.46
35-39	0.02753	0.03524	0.78119	3.83712	24.59890	31.49
40-44	0.03263	0.04330	0.75366	3.68672	20.76178	27.55
45-49	0.04095	0.05680	0.72103	3.50276	17.07506	23.68
50-54	0.05301	0.07795	0.68008	3.26785	13.57229	19.96
55-59	0.06999	0.11161	0.62706	2.96034	10.30445	16.43
60-64	0.09169	0.16459	0.55708	2.55616	7.34410	13.18
65-69	0.11440	0.24581	0.46539	2.04095	4.78794	10.29
70-74	0.12736	0.36285	0.35099	1.43656	2.74699	7.83
75-79	0.11484	0.51352	0.22363	0.83107	1.31043	5.86
80-84	0.07380	0.67832	0.10879	0.35947	0.47936	4.41
85-89	0.02893	0.82668	0.03500	0.10265	0.11989	3.43
90-94	0.00565	0.93175	0.00607	0.01620	0.01723	2.84
95-99	0.00041	1.00000	0.00041	0.00103	0.00103	2.50

Table 13: Abridged life table, Upper Nile, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.06003	0.06003	1.00000	0.95798	53.52472	53.52
1-4	0.04845	0.05154	0.93997	3.62909	52.56673	55.92
5-9	0.01275	0.01430	0.89153	4.42577	48.93764	54.89
10-14	0.00982	0.01117	0.87878	4.36935	44.51188	50.65
15-19	0.01688	0.01943	0.86896	4.30260	40.14253	46.20
20-24	0.02348	0.02756	0.85208	4.20167	35.83993	42.06
25-29	0.02470	0.02981	0.82859	4.08122	31.63826	38.18
30-34	0.02624	0.03265	0.80390	3.95387	27.55704	34.28
35-39	0.02985	0.03838	0.77765	3.81363	23.60318	30.35
40-44	0.03551	0.04749	0.74780	3.65023	19.78954	26.46
45-49	0.04466	0.06270	0.71229	3.44979	16.13932	22.66
50-54	0.05778	0.08655	0.66763	3.19368	12.68953	19.01
55-59	0.07587	0.12440	0.60985	2.85956	9.49585	15.57
60-64	0.09799	0.18351	0.53398	2.42492	6.63629	12.43
65-69	0.11878	0.27243	0.43599	1.88300	4.21138	9.66
70-74	0.12573	0.39635	0.31721	1.27175	2.32837	7.34
75-79	0.10511	0.54889	0.19149	0.69467	1.05662	5.52
80-84	0.06122	0.70870	0.08638	0.27886	0.36196	4.19
85-89	0.02134	0.84811	0.02516	0.07246	0.08310	3.30
90-94	0.00361	0.94352	0.00382	0.01009	0.01063	2.78
95-99	0.00022	1.00000	0.00022	0.00054	0.00054	2.50

Table 14: Abridged life table, Jonglei, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.02606	0.02606	1.00000	0.98176	57.38290	57.38
1-4	0.03038	0.03119	0.97394	3.81375	56.40114	57.91
5-9	0.00895	0.00948	0.94356	4.69545	52.58739	55.73
10-14	0.00713	0.00763	0.93462	4.65526	47.89194	51.24
15-19	0.01274	0.01374	0.92749	4.60557	43.23668	46.62
20-24	0.01868	0.02042	0.91474	4.52700	38.63111	42.23
25-29	0.02078	0.02319	0.89606	4.42834	34.10411	38.06
30-34	0.02329	0.02661	0.87528	4.31817	29.67577	33.90
35-39	0.02791	0.03276	0.85199	4.19018	25.35760	29.76
40-44	0.03505	0.04253	0.82408	4.03279	21.16742	25.69
45-49	0.04668	0.05916	0.78904	3.82847	17.13463	21.72
50-54	0.06421	0.08650	0.74235	3.55123	13.30616	17.92
55-59	0.08966	0.13221	0.67814	3.16656	9.75493	14.38
60-64	0.12180	0.20697	0.58848	2.63792	6.58837	11.20
65-69	0.14996	0.32132	0.46668	1.95853	3.95045	8.46
70-74	0.15009	0.47389	0.31673	1.20840	1.99192	6.29
75-79	0.10686	0.64131	0.16663	0.56601	0.78352	4.70
80-84	0.04735	0.79216	0.05977	0.18048	0.21752	3.64
85-89	0.01126	0.90629	0.01242	0.03397	0.03704	2.98
90-94	0.00113	0.97239	0.00116	0.00299	0.00307	2.64
95-99	0.00003	1.00000	0.00003	0.00008	0.00008	2.50

Table 15: Abridged life table, Unity, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.05277	0.05277	1.00000	0.96306	60.39245	60.39
1-4	0.03478	0.03672	0.94723	3.69500	59.42939	62.74
5-9	0.00884	0.00968	0.91245	4.54014	55.73439	61.08
10-14	0.00675	0.00747	0.90361	4.50118	51.19425	56.66
15-19	0.01152	0.01284	0.89686	4.45552	46.69307	52.06
20-24	0.01589	0.01794	0.88534	4.38701	42.23756	47.71
25-29	0.01661	0.01910	0.86946	4.30577	37.85055	43.53
30-34	0.01762	0.02065	0.85285	4.22020	33.54478	39.33
35-39	0.02007	0.02403	0.83523	4.12599	29.32458	35.11
40-44	0.02403	0.02948	0.81516	4.01573	25.19859	30.91
45-49	0.03063	0.03872	0.79113	3.87907	21.18285	26.78
50-54	0.04062	0.05341	0.76050	3.70094	17.30378	22.75
55-59	0.05571	0.07739	0.71988	3.46011	13.60284	18.90
60-64	0.07756	0.11678	0.66417	3.12692	10.14272	15.27
65-69	0.10647	0.18151	0.58660	2.66683	7.01580	11.96
70-74	0.13665	0.28462	0.48013	2.05901	4.34897	9.06
75-79	0.14919	0.43435	0.34348	1.34440	2.28996	6.67
80-84	0.11964	0.61581	0.19429	0.67232	0.94556	4.87
85-89	0.05874	0.78697	0.07464	0.22636	0.27323	3.66
90-94	0.01448	0.91041	0.01590	0.04331	0.04688	2.95
95-99	0.00142	1.00000	0.00142	0.00356	0.00356	2.50

Table 16: Abridged life table, Warrap, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.12036	0.12036	1.00000	0.91574	51.28714	51.29
1-4	0.05853	0.06654	0.87964	3.36050	50.37140	57.26
5-9	0.01369	0.01668	0.82110	4.07127	47.01090	57.25
10-14	0.01020	0.01263	0.80741	4.01154	42.93963	53.18
15-19	0.01692	0.02123	0.79721	3.94374	38.92808	48.83
20-24	0.02245	0.02877	0.78029	3.84530	34.98434	44.84
25-29	0.02250	0.02968	0.75783	3.73293	31.13904	41.09
30-34	0.02289	0.03113	0.73534	3.61946	27.40611	37.27
35-39	0.02501	0.03510	0.71245	3.49971	23.78664	33.39
40-44	0.02863	0.04164	0.68744	3.36561	20.28693	29.51
45-49	0.03467	0.05263	0.65881	3.20736	16.92132	25.68
50-54	0.04331	0.06939	0.62414	3.01240	13.71396	21.97
55-59	0.05533	0.09526	0.58082	2.76581	10.70155	18.42
60-64	0.07085	0.13483	0.52550	2.45036	7.93575	15.10
65-69	0.08862	0.19492	0.45465	2.05167	5.48539	12.07
70-74	0.10400	0.28414	0.36602	1.57011	3.43372	9.38
75-79	0.10731	0.40954	0.26202	1.04184	1.86361	7.11
80-84	0.08779	0.56742	0.15471	0.55410	0.82177	5.31
85-89	0.04912	0.73398	0.06693	0.21182	0.26767	4.00
90-94	0.01554	0.87262	0.01780	0.05018	0.05585	3.14
95-99	0.00227	1.00000	0.00227	0.00567	0.00567	2.50

Table 17: Abridged life table, Northern Bahr el Ghazal, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.11627	0.11627	1.00000	0.91861	50.94138	50.94
1-4	0.05946	0.06728	0.88373	3.37437	50.02277	56.60
5-9	0.01403	0.01702	0.82427	4.08625	46.64841	56.59
10-14	0.01047	0.01292	0.81023	4.02500	42.56215	52.53
15-19	0.01742	0.02178	0.79976	3.95527	38.53716	48.19
20-24	0.02318	0.02962	0.78234	3.85377	34.58189	44.20
25-29	0.02328	0.03067	0.75917	3.73762	30.72812	40.48
30-34	0.02375	0.03227	0.73588	3.62004	26.99050	36.68
35-39	0.02599	0.03650	0.71213	3.49569	23.37047	32.82
40-44	0.02979	0.04342	0.68614	3.35623	19.87477	28.97
45-49	0.03612	0.05503	0.65635	3.19146	16.51854	25.17
50-54	0.04512	0.07275	0.62023	2.98837	13.32708	21.49
55-59	0.05756	0.10009	0.57511	2.73165	10.33871	17.98
60-64	0.07343	0.14189	0.51755	2.40416	7.60706	14.70
65-69	0.09108	0.20508	0.44412	1.99288	5.20290	11.72
70-74	0.10521	0.29800	0.35304	1.50218	3.21002	9.09
75-79	0.10571	0.42654	0.24783	0.97489	1.70785	6.89
80-84	0.08315	0.58504	0.14212	0.50274	0.73296	5.16
85-89	0.04416	0.74879	0.05897	0.18448	0.23022	3.90
90-94	0.01307	0.88250	0.01482	0.04139	0.04574	3.09
95-99	0.00174	1.00000	0.00174	0.00435	0.00435	2.50

Table 18: Abridged life table, Western Bahr el Ghazal, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.06735	0.06735	1.00000	0.95286	54.83195	54.83
1-4	0.04714	0.05055	0.93265	3.60333	53.87909	57.77
5-9	0.01201	0.01357	0.88551	4.39753	50.27576	56.78
10-14	0.00917	0.01050	0.87350	4.34458	45.87823	52.52
15-19	0.01563	0.01808	0.86433	4.28259	41.53365	48.05
20-24	0.02148	0.02531	0.84871	4.18983	37.25106	43.89
25-29	0.02234	0.02701	0.82722	4.08027	33.06123	39.97
30-34	0.02352	0.02922	0.80488	3.96562	28.98096	36.01
35-39	0.02655	0.03398	0.78136	3.84043	25.01534	32.02
40-44	0.03140	0.04161	0.75481	3.69554	21.17491	28.05
45-49	0.03934	0.05438	0.72341	3.51867	17.47937	24.16
50-54	0.05089	0.07439	0.68406	3.29310	13.96070	20.41
55-59	0.06725	0.10621	0.63318	2.99777	10.66759	16.85
60-64	0.08851	0.15640	0.56593	2.60837	7.66983	13.55
65-69	0.11166	0.23389	0.47742	2.10794	5.06146	10.60
70-74	0.12696	0.34712	0.36576	1.51137	2.95353	8.08
75-79	0.11844	0.49599	0.23879	0.89787	1.44215	6.04
80-84	0.07974	0.66256	0.12035	0.40242	0.54428	4.52
85-89	0.03311	0.81522	0.04061	0.12029	0.14186	3.49
90-94	0.00694	0.92522	0.00750	0.02016	0.02157	2.87
95-99	0.00056	1.00000	0.00056	0.00140	0.00140	2.50



Table 19: Abridged life table, Lakes, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.05453	0.05453	1.00000	0.96183	58.02623	58.03
1-4	0.03894	0.04118	0.94547	3.67677	57.06440	60.36
5-9	0.01004	0.01107	0.90654	4.50760	53.38763	58.89
10-14	0.00769	0.00858	0.89650	4.46329	48.88002	54.52
15-19	0.01317	0.01482	0.88881	4.41113	44.41674	49.97
20-24	0.01825	0.02084	0.87564	4.33257	40.00561	45.69
25-29	0.01915	0.02233	0.85739	4.23909	35.67304	41.61
30-34	0.02035	0.02428	0.83824	4.14034	31.43395	37.50
35-39	0.02322	0.02839	0.81789	4.03142	27.29361	33.37
40-44	0.02780	0.03498	0.79468	3.90389	23.26220	29.27
45-49	0.03535	0.04610	0.76688	3.74602	19.35831	25.24
50-54	0.04663	0.06374	0.73153	3.54106	15.61229	21.34
55-59	0.06326	0.09236	0.68490	3.26634	12.07124	17.62
60-64	0.08624	0.13873	0.62164	2.89261	8.80489	14.16
65-69	0.11399	0.21290	0.53540	2.39204	5.91228	11.04
70-74	0.13730	0.32581	0.42141	1.76381	3.52025	8.35
75-79	0.13627	0.47965	0.28411	1.07988	1.75643	6.18
80-84	0.09674	0.65437	0.14784	0.49734	0.67655	4.58
85-89	0.04153	0.81269	0.05110	0.15167	0.17921	3.51
90-94	0.00885	0.92454	0.00957	0.02573	0.02754	2.88
95-99	0.00072	1.00000	0.00072	0.00181	0.00181	2.50

Table 20: Abridged life table, Western Equatoria, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.05374	0.05374	1.00000	0.96238	51.08031	51.08
1-4	0.05205	0.05500	0.94626	3.64452	50.11793	52.96
5-9	0.01430	0.01599	0.89422	4.43533	46.47341	51.97
10-14	0.01114	0.01266	0.87992	4.37174	42.03808	47.78
15-19	0.01938	0.02231	0.86878	4.29545	37.66633	43.36
20-24	0.02734	0.03219	0.84940	4.17864	33.37089	39.29
25-29	0.02913	0.03543	0.82206	4.03746	29.19225	35.51
30-34	0.03125	0.03941	0.79293	3.88651	25.15480	31.72
35-39	0.03577	0.04697	0.76168	3.71895	21.26829	27.92
40-44	0.04269	0.05881	0.72590	3.52279	17.54933	24.18
45-49	0.05359	0.07844	0.68321	3.28209	14.02654	20.53
50-54	0.06866	0.10905	0.62962	2.97647	10.74445	17.06
55-59	0.08805	0.15696	0.56096	2.58470	7.76798	13.85
60-64	0.10856	0.22954	0.47292	2.09319	5.18328	10.96
65-69	0.12132	0.33298	0.36436	1.51850	3.09009	8.48
70-74	0.11328	0.46610	0.24304	0.93199	1.57159	6.47
75-79	0.07995	0.61613	0.12976	0.44892	0.63960	4.93
80-84	0.03799	0.76277	0.04981	0.15407	0.19068	3.83
85-89	0.01045	0.88462	0.01182	0.03295	0.03662	3.10
90-94	0.00131	0.96216	0.00136	0.00354	0.00367	2.69
95-99	0.00005	1.00000	0.00005	0.00013	0.00013	2.50

Table 21: Abridged life table, Central Equatoria, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.09368	0.09368	1.00000	0.93442	52.10019	52.10
1-4	0.05596	0.06174	0.90632	3.47418	51.16577	56.45
5-9	0.01367	0.01607	0.85036	4.21762	47.69160	56.08
10-14	0.01030	0.01231	0.83669	4.15770	43.47398	51.96
15-19	0.01731	0.02095	0.82639	4.08867	39.31628	47.58
20-24	0.02335	0.02886	0.80908	3.98700	35.22762	43.54
25-29	0.02380	0.03029	0.78572	3.86912	31.24062	39.76
30-34	0.02458	0.03226	0.76192	3.74817	27.37150	35.92
35-39	0.02723	0.03693	0.73734	3.61863	23.62334	32.04
40-44	0.03158	0.04447	0.71011	3.47161	20.00470	28.17
45-49	0.03873	0.05708	0.67853	3.29582	16.53310	24.37
50-54	0.04895	0.07651	0.63980	3.07661	13.23727	20.69
55-59	0.06309	0.10677	0.59085	2.79652	10.16066	17.20
60-64	0.08098	0.15344	0.52776	2.43635	7.36414	13.95
65-69	0.10016	0.22418	0.44678	1.98350	4.92778	11.03
70-74	0.11337	0.32707	0.34662	1.44968	2.94428	8.49
75-79	0.10848	0.46506	0.23325	0.89507	1.49460	6.41
80-84	0.07822	0.62691	0.12478	0.42833	0.59953	4.80
85-89	0.03653	0.78470	0.04655	0.14144	0.17120	3.68
90-94	0.00908	0.90613	0.01002	0.02741	0.02976	2.97
95-99	0.00094	1.00000	0.00094	0.00235	0.00235	2.50

Table 22: Abridged life table, Eastern Equatoria, Females

Age group	$nd_x$	$nq_x$	$l_x$	$nL_x$	$T_x$	$e_x^0$
0	0.06859	0.06859	1.00000	0.95198	59.01318	59.01
1-4	0.03949	0.04240	0.93141	3.61899	58.06120	62.34
5-9	0.00971	0.01089	0.89191	4.43528	54.44221	61.04
10-14	0.00735	0.00833	0.88220	4.39263	50.00693	56.68
15-19	0.01241	0.01418	0.87485	4.34325	45.61430	52.14
20-24	0.01687	0.01956	0.86245	4.27006	41.27105	47.85
25-29	0.01737	0.02055	0.84558	4.18445	37.00099	43.76
30-34	0.01817	0.02193	0.82820	4.09560	32.81654	39.62
35-39	0.02041	0.02520	0.81004	3.99916	28.72094	35.46
40-44	0.02409	0.03051	0.78963	3.88792	24.72178	31.31
45-49	0.03022	0.03948	0.76554	3.75214	20.83386	27.21
50-54	0.03939	0.05357	0.73532	3.57811	17.08172	23.23
55-59	0.05301	0.07618	0.69593	3.34711	13.50361	19.40
60-64	0.07240	0.11262	0.64292	3.03357	10.15650	15.80
65-69	0.09785	0.17151	0.57051	2.60794	7.12293	12.49
70-74	0.12516	0.26480	0.47266	2.05041	4.51499	9.55
75-79	0.13992	0.40264	0.34750	1.38771	2.46458	7.09
80-84	0.11993	0.57775	0.20758	0.73809	1.07687	5.19
85-89	0.06610	0.75412	0.08765	0.27301	0.33878	3.87
90-94	0.01917	0.88962	0.02155	0.05983	0.06577	3.05
95-99	0.00238	1.00000	0.00238	0.00595	0.00595	2.50

## References

Shryock H.S. and J.S. Siegel (1980): The Methods and Materials of Demography. Volume 2.

UN(1983): Manual X. Indirect Techniques for Demographic Estimations. ST/ESA/SER.A/81