STATUS OF FERTILITY TRANSITION IN KENYA BASED ON COMPLETED PARITY DISTRIBUTION.

ONGONG'A, CALEB OUMA

PhD Candidate (University of Nairobi)

Population Studies and Research Institute

Email: oumacaleb@gmail.com

Abstract

Fertility transition is defined as a long term decline in the number of children per woman from high of about four or more to a low of about two or fewer. Attempts to explain this fertility transition has gained considerable interest among demographers. It is documented that the transition begun in Western Europe on the onset of the industrial revolution and then spread to other parts of the world. It is further established that fertility transitions have been more rapid among the late comers than among the first comers. Economic, sociological and biological theories were extensively used in the nineteenth and twentieth century to explain fertility decline. But, today, discourses have pointed towards ideational change and diffusion of ideas as the traction towards the fertility decline.

Fertility is a general term used to estimate the actual reproductive performance of a woman or groups of women. There are two kinds of age-adjusted measures of fertility, which are total fertility rate (TFR) and completed fertility rate (CFR). TFR which is a hypothetical measure of fertility has been widely used despite the existence of other pragmatic measures. TFR as a measure of fertility has been widely criticised and some seasoned demographers have even proposed stopping its usage as a fertility indicator because it provides misleading information about fertility estimates. Bhrolchain (1992) for example considers TFR a rudimentary, an unstable and unsatisfactory measure. Rallu and Toulemon (1994) and Mboup and Saha (1998) also pointed that TFR neither represents the current situation nor controls for parity distribution and duration since last birth for women, which are key determinant of a woman reproductive behaviour. TFR therefore does not show the progressive nature of childbearing which measures the proportion of women moving from one parity to the next. TFR as a measure of fertility, has also been found to be affected by both tempo and quantum effects, thereby inflating the implied level of fertility leading to misinterpretation (Bhrolchain, 1992; Bongaarts & Feeney, 1998, 2010; Máire Ní Bhrolcháin, 2011; Sobotka & Lutz, 2008). Continuous

use of a problematic fertility indicator can lead to erroneous conclusions therefore leading to wrong policy directions (Bhrolchain, 2011; and Sobotka & Lutz, 2008).

Inter-cohort fertility change, through a measure of proportion of women moving from one parity to the next, provides a better understanding of women reproductive behaviour. Cohort measure of fertility estimates can leverage against the number of challenges encountered by TFR as mentioned above. This paper focuses on utilizing data from a cohort of women by the number of children ever born and is based on the life table approach as advanced by Lutz (1987) and further by W. Lutz and G. Feichtinger (1988), to explain women childbearing experiences. This kind of measure does provide information on women reproductive behaviour. An advantage of this approach is that, it is unambiguous and provides a true reflection of reproductive experience of women. This study focused on the process of fertility change derived from actual cohort experiences to explain fertility transition in Kenya using DHS series of datasets. The underlying research question was, how has parity distributions based on cohort experiences as measure of fertility behaviour changed over time? Analysis was considered by a number of key socio-demographic parameters.

Analysis confirmed a consistent fertility decline over time. However, stalling of fertility is evident among those living in urban area and those with higher education. Proportion of women remaining childless, declined steadily from 2.6% to 1.9%, meaning that fewer women remained childless by the end of their reproductive cycle. The proportion childless was consistently lower among those who reside in rural areas, less educated, married and the middle class.

Transition from higher parities to lower parities were witnessed through the modal parity distribution, and the change in spread from right to a more concentrated distribution towards lower parities. The key issue is that tendency to remain childless declines, but the propensity to stop children at lower parity increased. Conclusion from this study is that fertility transition is still on, although it has stalled among the educated and those residing in urban areas. Recommendation for policy makers is to formulate targeted policies geared towards fertility reduction among the poor, rural residents, less educated and the married. The study also opens up to demographers to pursue other approaches that can be used to explain fertility transition other that the conventional approach.

Completed Parity Progression Ratios of women aged 40-49 years

		Completed Parity Progression Ratios														
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Overall	2014	0.98	0.96	0.91	0.85	0.79	0.77	0.71	0.64	0.59	0.57	0.47	0.36	0.32	0.25	0.20
	2008	0.98	0.97	0.92	0.86	0.81	0.80	0.74	0.71	0.59	0.55	0.52	0.50	0.43	0.31	0.00
	2003	0.98	0.97	0.94	0.88	0.86	0.80	0.77	0.74	0.63	0.59	0.45	0.55	0.30	0.55	0.17
	1989	0.97	0.98	0.97	0.95	0.93	0.91	0.85	0.82	0.73	0.65	0.62	0.49	0.54	0.49	0.24
Rural	2014	0.98	0.97	0.94	0.88	0.82	0.79	0.73	0.66	0.60	0.58	0.46	0.35	0.31	0.33	0.20
	2008	0.99	0.98	0.95	0.89	0.84	0.82	0.75	0.73	0.59	0.55	0.54	0.52	0.43	0.31	0.00
	2003	0.98	0.98	0.97	0.92	0.88	0.81	0.80	0.75	0.64	0.59	0.46	0.52	0.31	0.50	0.20
	1989	0.98	0.99	0.98	0.96	0.95	0.92	0.87	0.82	0.74	0.65	0.62	0.51	0.54	0.49	0.24
Urban	2014	0.98	0.94	0.85	0.77	0.71	0.71	0.67	0.57	0.54	0.56	0.54	0.42	0.36	0.00	
	2008	0.96	0.92	0.81	0.70	0.69	0.65	0.63	0.51	0.63	0.60	0.22	0.00			
	2003	0.97	0.95	0.85	0.75	0.79	0.77	0.66	0.63	0.56	0.61	0.35	0.83	0.20	0.00	
	1989	0.93	0.94	0.93	0.86	0.77	0.79	0.68	0.80	0.63	0.50	0.55	0.00			
Prim	2014	0.98	0.97	0.95	0.90	0.84	0.81	0.74	0.65	0.61	0.58	0.47	0.36	0.31	0.26	0.20
	2008	0.98	0.97	0.96	0.91	0.86	0.84	0.77	0.71	0.59	0.55	0.52	0.52	0.41	0.33	0.00
	2003	0.98	0.98	0.97	0.95	0.90	0.82	0.81	0.76	0.65	0.60	0.45	0.55	0.31	0.55	0.17
	1989	0.98	0.98	0.98	0.96	0.93	0.91	0.85	0.82	0.73	0.64	0.62	0.49	0.55	0.49	0.24
Sec+	2014	0.97	0.93	0.82	0.70	0.64	0.58	0.53	0.53	0.41	0.40	0.50	0.29	0.50	0.00	
	2008	0.97	0.95	0.82	0.70	0.63	0.58	0.46	0.70	0.58	0.53	0.50	0.25	0.00		
	2003	0.97	0.95	0.88	0.69	0.70	0.69	0.51	0.52	0.35	0.56	0.40	0.50	0.00		
	1989	0.92	0.98	0.85	0.69	0.70	0.79	0.67	0.40	0.25	0.00					
Single	2014	0.96	0.91	0.85	0.79	0.78	0.73	0.65	0.59	0.52	0.46	0.49	0.24	0.40	0.00	
	2008	0.96	0.93	0.89	0.84	0.81	0.76	0.72	0.70	0.49	0.53	0.40	0.25	0.00		
	2003	0.96	0.93	0.90	0.84	0.82	0.80	0.71	0.64	0.57	0.59	0.45	0.50	0.20	0.00	
	1989	0.97	0.95	0.95	0.92	0.88	0.85	0.71	0.75	0.63	0.63	0.73	0.63	0.40	0.25	0.00
Married	2014	0.99	0.98	0.93	0.86	0.80	0.78	0.73	0.65	0.61	0.59	0.47	0.38	0.31	0.28	0.20
	2008	0.99	0.98	0.93	0.86	0.81	0.81	0.74	0.72	0.62	0.56	0.54	0.54	0.39	0.18	0.00
	2003	0.98	0.99	0.96	0.89	0.87	0.80	0.79	0.76	0.64	0.59	0.45	0.56	0.31	0.60	0.17
	1989	0.98	0.99	0.98	0.95	0.94	0.91	0.87	0.82	0.74	0.65	0.61	0.48	0.57	0.51	0.25
Poor	2014	0.99	0.98	0.96	0.93	0.88	0.84	0.77	0.67	0.60	0.58	0.47	0.34	0.26	0.27	0.00
	2008	0.98	0.99	0.98	0.95	0.91	0.87	0.80	0.77	0.61	0.57	0.50	0.46	0.39	0.43	0.00
	2003	0.98	0.98	0.98	0.96	0.93	0.87	0.85	0.77	0.68	0.63	0.46	0.61	0.21	0.50	0.33
	1989															
Middle	2014	0.99	0.97	0.94	0.87	0.80	0.73	0.67	0.58	0.59	0.58	0.47	0	0	0	0
	2008	0.97	0.96	0.90	0.78	0.76	0.71	0.64	0.62	0.52	0.50	0.33	0.14	0.00		
	2003	0.99	0.97	0.95	0.93	0.90	0.79	0.78	0.77	0.61	0.55	0.50	0.57	0.50	0.75	0.00
	1989															
Richer	2014	0.97	0.93	0.83	0.72	0.63	0.64	0.58	0.59	0.55	0.52	0.50	0.38	0.50	0.25	0.00
	2008	0.97	0.94	0.85	0.74	0.65	0.66	0.60	0.52	0.61	0.50	0.50	0.57	0.25	0.00	
	2003	0.97	0.96	0.90	0.78	0.76	0.71	0.64	0.62	0.52	0.50	0.33	0.14	0.00		
	1989															

Completed Parity Distribution per 1000 women aged 40-49 years

	Years	F(0)	Completed Parity Distribution (di) Per 1000														
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Overall	2014	6.3	19	38	84	131	150	132	128	114	83	52	37	21	8	3	1
	2008	6.5	20	34	79	125	139	121	127	102	103	67	40	21	12	6	3
	2003	7.0	23	29	55	105	110	134	124	111	114	79	64	23	20	4	5
	1989	8.3	26	20	24	51	65	77	111	116	139	133	92	76	34	21	17
Rural	2014	6.7	17	26	59	109	140	138	141	126	97	63	46	26	9	3	1
	2008	7.1	13	22	50	97	133	121	141	113	127	83	46	26	16	8	4
	2003	7.4	19	21	26	73	106	144	125	119	132	96	75	31	23	5	5
	1989	8.7	20	14	17	39	48	72	107	125	148	143	101	82	39	24	20
Urban	2014	5.4	25	63	137	178	172	121	99	88	53	28	16	11	5	3	0
	2008	4.9	41	74	171	212	156	121	83	68	27	18	21	6	0	0	0
	2003	5.6	35	50	134	195	122	108	122	87	64	32	32	3	12	0	3
	1989	6.1	65	52	65	118	163	111	137	59	85	72	33	39	0		
Prim or less	2014	6.9	16	26	52	92	134	129	143	141	104	67	50	28	11	4	1
	2008	7.2	16	28	43	81	114	114	137	134	135	88	53	27	17	8	4
	2003	7.6	22	22	32	50	86	139	121	128	140	106	85	31	27	5	6
	1989	8.5	24	20	19	41	60	77	112	116	143	140	96	80	34	22	18
Sec and above	2014	4.9	27	65	161	224	189	141	90	48	32	14	5	3	1	1	0
	2008	4.9	29	48	166	229	198	137	104	27	27	17	10	7	0	2	0
	2003	5.2	28	47	113	249	171	122	133	66	47	11	8	3	3	0	0
	1989	5.1	78	20	137	235	157	78	98	118	59	0	0	0	20	2	0
Single	2014	5.4	43	88	134	154	128	124	116	87	61	35	15	11	2	1	0
	2008	5.9	40	72	101	127	127	127	114	88	103	48	32	16	0	0	5
	2003	6.0	40	71	93	127	121	108	127	111	87	46	37	15	12	3	
	1989	7.1	34	51	46	69	97	109	171	109	114	74	34	34	34	17	5
Married	2014	6.6	11	19	66	123	158	136	132	124	91	58	44	25	10	3	1
	2008	6.8	13	21	71	124	143	118	132	108	103	74	43	23	17	9	2
	2003	7.3	18	14	42	98	107	143	123	111	123	90	72	26	23	4	6
	1989	8.5	25	13	20	47	58	72	100	117	143	144	103	84	34	21	19
Poor	2014	7.4	14	19	37	63	104	121	149	161	132	84	62	36	14	4	1
	2008	7.9	16	14	23	50	78	109	142	130	171	117	76	41	21	8	6
	2003	8.2	19	19	15	35	63	109	113	142	157	121	113	38	46	6	6
	1989																
Middle	2014	6.4	11	31	60	117	157	170	149	129	72	43	32	17	7	4	1
	2008	6.9	10	31	52	107	110	131	159	117	131	69	34	21	10	17	0
	2003	7.4	13	26	43	61	87	160	134	108	143	100	61	26	17	4	17
	1989																
Richer	2014	5.0	30	63	150	215	198	125	92	52	33	20	11	7	2	2	1
	2008	5.2	29	54	141	198	205	126	99	71	30	24	12	5	5	0	2
	2003	5.7	31	38	93	181	158	145	129	86	67	36	24	10	0	2	0
	1989																