

Errata/17.10.08

Errata in Alho and Spencer (2005): Statistical demography and forecasting.

P.28, *5, last formula: add missing k's to subscripts:

$$X^2 = \left\{ \sum_{k=1}^K \left(\frac{a_k d_k - b_k c_k}{N_k} \right) \right\}^2 / \sum_{k=1}^K \left(\frac{n_{1k} n_{2k} m_{1k} m_{2k}}{N_k^2 (N_k - 1)} \right).$$

P.29, 10, last 2 lines: add missing N:

$$P(m; n_1, N - n_1, n_2) / P(m; n_1, N - 1 - n_1, n_2) = (N - n_1)(N - n_2) / [N(N - n_1 - n_2 + m)].$$

P.113, line 2:

Using (2.23)...

P.114, first three panels corrected:

x	K_x	D_x	M_x	$\Lambda_{x,1}$
70	4941.11	225.583	0.0456544	0.0456580
71	4891.94	245.801	0.0502460	0.0502501
72	4843.27	268.031	0.0553409	0.0553454
73	4795.07	292.472	0.0609942	0.0609992

P.114, 30, last decimals corrected:

0.0456582, ..., 0.0609989.

P.114, 29, 3rd line from bottom:

$$E[1/X] = -p \log(p) / (1 - p)$$

P.114, 31, introduce F to capture intention:

Let X be the total number of children they will have. Let F be the fraction who are male. (a) Show that $E[X] = 2 - p$. (b) Show that the expected number of boys is $p(2 - p)$ and the expected number of girls is $(1 - p)(2 - p)$, so their ratio is $p/(1 - p)$. (c) Show that $E[F] = p(3 - p)/2$. (d) Conclude that $E[F] > p$.

P.124, lines 1-2:

under (2.2) $\text{logit } q(x + 1, t) - \text{logit } q(x, t) = \alpha_{x+1} - \alpha_x$.

P. 140, lines 13-14: Addendum:

A more widely implemented choice is $\alpha_i = \sigma^2$, and $\beta_i = \sigma^2 / \mu_i$. Then, $\text{Var}(Y_i) = \mu_i + \mu_i^2 \sigma^2$.

P. 273, (2.4) transpose missing from Z_1 .