

# Revised Tables: By Ariel Sosnovsky

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Table # 1b							
Gompertz-Makeham Parameters Around the World: FEMALE							
Country	$\ln h[i]$	$\lambda_0[i]$	Makeham: $\lambda$	$g[i]$	$\lambda_{55}[i]$	$m$	$b$
1. Australia	-12.349	$31.5 \times 10^{-5}$	$31.0 \times 10^{-5}$	11.29%	0.273%	90.04	8.85
2. Austria	-11.952	$4.7 \times 10^{-5}$	$4.0 \times 10^{-5}$	10.99%	0.308%	88.65	9.10
3. Belarus	-10.797	$76.3 \times 10^{-5}$	$74.0 \times 10^{-5}$	10.21%	0.695%	83.44	9.80
4. Belgium	-11.620	$15.0 \times 10^{-5}$	$14.0 \times 10^{-5}$	10.60%	0.355%	88.43	9.43
5. Canada	-11.773	$18.9 \times 10^{-5}$	$18.0 \times 10^{-5}$	10.64%	0.317%	89.56	9.40
6. Croatia	-11.784	$1.9 \times 10^{-5}$	$1.0 \times 10^{-5}$	11.25%	0.416%	85.34	8.89
7. Czechia	-12.009	$19.7 \times 10^{-5}$	$19.0 \times 10^{-5}$	11.44%	0.388%	86.01	8.74
8. Denmark	-11.608	$2.0 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.75%	0.376%	87.21	9.30
9. Estonia	-11.132	$18.6 \times 10^{-5}$	$17.0 \times 10^{-5}$	10.20%	0.460%	86.75	9.80
10. Finland	-11.860	$9.8 \times 10^{-5}$	$9.0 \times 10^{-5}$	10.84%	0.315%	88.90	9.22
11. France	-11.614	$22.0 \times 10^{-5}$	$21.0 \times 10^{-5}$	10.25%	0.302%	91.08	9.75
12. Germany	-11.898	$11.8 \times 10^{-5}$	$11.0 \times 10^{-5}$	11.00%	0.332%	88.12	9.09
13. Greece	-12.594	$24.4 \times 10^{-5}$	$24.0 \times 10^{-5}$	11.78%	0.272%	88.77	8.49
14. Hungary	-10.812	$3.2 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.14%	0.590%	84.06	9.86
15. Ireland	-11.725	$8.9 \times 10^{-5}$	$8.0 \times 10^{-5}$	10.75%	0.342%	88.29	9.30
16. Israel	-12.494	$23.4 \times 10^{-5}$	$23.0 \times 10^{-5}$	11.64%	0.277%	88.84	8.59
17. Italy	-12.478	$15.4 \times 10^{-5}$	$15.0 \times 10^{-5}$	11.49%	0.252%	89.80	8.71
18. Japan	-12.344	$38.5 \times 10^{-5}$	$38.0 \times 10^{-5}$	11.00%	0.245%	92.12	9.09
19. Korea	-13.266	$47.2 \times 10^{-5}$	$47.0 \times 10^{-5}$	12.46%	0.233%	89.77	8.03
20. Latvia	-10.646	$20.6 \times 10^{-5}$	$18.0 \times 10^{-5}$	9.86%	0.612%	84.51	10.15
21. Lithuania	-10.649	$43.6 \times 10^{-5}$	$41.0 \times 10^{-5}$	9.74%	0.597%	85.39	10.26
22. Luxembourg	-11.877	$1.8 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.92%	0.316%	88.47	9.16
23. Netherlands	-11.700	$12.9 \times 10^{-5}$	$12.0 \times 10^{-5}$	10.73%	0.350%	88.22	9.32
24. New Zealand	-12.079	$33.6 \times 10^{-5}$	$33.0 \times 10^{-5}$	11.17%	0.329%	88.48	8.95
25. Norway	-12.006	$5.7 \times 10^{-5}$	$5.0 \times 10^{-5}$	11.05%	0.303%	88.68	9.05
26. Poland	-11.280	$10.4 \times 10^{-5}$	$9.0 \times 10^{-5}$	10.45%	0.449%	86.31	9.57
27. Portugal	-12.249	$27.5 \times 10^{-5}$	$27.0 \times 10^{-5}$	11.31%	0.297%	89.00	8.84
28. Russia	-11.156	$160.6 \times 10^{-5}$	$159.0 \times 10^{-5}$	10.65%	0.714%	83.74	9.39
29. Slovakia	-11.560	$10.1 \times 10^{-5}$	$9.0 \times 10^{-5}$	11.00%	0.460%	85.04	9.09
30. Slovenia	-11.683	$1.9 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.73%	0.345%	88.07	9.32
31. Spain	-12.362	$17.5 \times 10^{-5}$	$17.0 \times 10^{-5}$	11.24%	0.248%	90.57	8.90
32. Sweden	-12.377	$11.5 \times 10^{-5}$	$11.0 \times 10^{-5}$	11.51%	0.276%	88.79	8.69
33. Switzerland	-12.233	$6.5 \times 10^{-5}$	$6.0 \times 10^{-5}$	11.15%	0.256%	90.05	8.97
34. Taiwan	-12.051	$40.7 \times 10^{-5}$	$40.0 \times 10^{-5}$	11.15%	0.341%	88.40	8.97
35. U.K.	-11.861	$29.8 \times 10^{-5}$	$29.0 \times 10^{-5}$	10.90%	0.345%	88.48	9.17
36. U.S.A.	-11.063	$41.7 \times 10^{-5}$	$40.0 \times 10^{-5}$	9.97%	0.457%	87.83	10.03
37. Ukraine	-11.460	$129.2 \times 10^{-5}$	$128.0 \times 10^{-5}$	11.12%	0.662%	83.29	8.99
<b>Average:</b>	<b>- 11.795</b>	<b><math>27.0 \times 10^{-5}</math></b>	<b><math>26.0 \times 10^{-5}</math></b>	<b>10.90%</b>	<b>0.381%</b>	<b>87.80</b>	<b>9.20</b>
Source: Human Mortality Database, Period 2011							

Table # 1a							
Gompertz-Makeham Parameters Around the World: MALE							
Country	$\ln h[i]$	$\lambda_0[i]$	Makeham: $\lambda$	$g[i]$	$\lambda_{55}[i]$	$m$	$b$
1. Australia	-11.854	$66.8 \times 10^{-5}$	$66.0 \times 10^{-5}$	11.19%	0.440%	86.37	8.94
2. Austria	-10.769	$3.3 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.08%	0.596%	84.08	9.92
3. Belarus	-7.746	$50.4 \times 10^{-5}$	$4.0 \times 10^{-5}$	7.12%	2.335%	71.68	14.04
4. Belgium	-10.900	$29.0 \times 10^{-5}$	$27.0 \times 10^{-5}$	10.28%	0.610%	83.92	9.73
5. Canada	-11.292	$37.4 \times 10^{-5}$	$36.0 \times 10^{-5}$	10.53%	0.490%	85.85	9.50
6. Croatia	-10.156	$5.3 \times 10^{-5}$	$1.0 \times 10^{-5}$	9.75%	0.914%	80.29	10.26
7. Czechia	-10.258	$4.9 \times 10^{-5}$	$1.0 \times 10^{-5}$	9.81%	0.855%	80.88	10.19
8. Denmark	-10.835	$16.2 \times 10^{-5}$	$14.0 \times 10^{-5}$	10.25%	0.626%	83.50	9.76
9. Estonia	-9.045	$13.8 \times 10^{-5}$	$1.0 \times 10^{-5}$	8.33%	1.256%	78.72	12.00
10. Finland	-10.594	$36.8 \times 10^{-5}$	$34.0 \times 10^{-5}$	9.91%	0.679%	83.57	10.09
11. France	-10.378	$35.4 \times 10^{-5}$	$32.0 \times 10^{-5}$	9.44%	0.647%	84.92	10.59
12. Germany	-10.731	$3.4 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.10%	0.625%	83.57	9.90
13. Greece	-10.485	$17.1 \times 10^{-5}$	$14.0 \times 10^{-5}$	9.67%	0.643%	84.26	10.34
14. Hungary	-9.421	$9.9 \times 10^{-5}$	$1.0 \times 10^{-5}$	8.98%	1.239%	78.07	11.13
15. Ireland	-11.291	$39.4 \times 10^{-5}$	$38.0 \times 10^{-5}$	10.67%	0.529%	84.87	9.37
16. Israel	-11.038	$2.8 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.19%	0.486%	85.88	9.81
17. Italy	-11.647	$23.0 \times 10^{-5}$	$22.0 \times 10^{-5}$	11.06%	0.450%	85.39	9.04
18. Japan	-11.282	$39.4 \times 10^{-5}$	$38.0 \times 10^{-5}$	10.55%	0.502%	85.60	9.48
19. Korea	-10.803	$37.3 \times 10^{-5}$	$35.0 \times 10^{-5}$	10.19%	0.647%	83.59	9.81
20. Latvia	-8.517	$22.6 \times 10^{-5}$	$1.0 \times 10^{-5}$	7.86%	1.635%	75.98	12.72
21. Lithuania	-8.143	$32.3 \times 10^{-5}$	$1.0 \times 10^{-5}$	7.34%	1.772%	75.37	13.63
22. Luxembourg	-11.334	$2.3 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.83%	0.517%	84.11	9.23
23. Netherlands	-11.628	$18.0 \times 10^{-5}$	$17.0 \times 10^{-5}$	11.12%	0.468%	84.83	8.99
24. New Zealand	-11.542	$49.1 \times 10^{-5}$	$48.0 \times 10^{-5}$	10.88%	0.478%	85.68	9.19
25. Norway	-11.566	$33.1 \times 10^{-5}$	$32.0 \times 10^{-5}$	11.01%	0.484%	85.00	9.08
26. Poland	-9.198	$12.0 \times 10^{-5}$	$1.0 \times 10^{-5}$	8.48%	1.172%	79.34	11.79
27. Portugal	-10.377	$42.4 \times 10^{-5}$	$39.0 \times 10^{-5}$	9.62%	0.721%	83.50	10.39
28. Russia	-8.246	$315.3 \times 10^{-5}$	$287.0 \times 10^{-5}$	7.62%	2.158%	74.43	13.12
29. Slovakia	-9.593	$8.5 \times 10^{-5}$	$1.0 \times 10^{-5}$	9.10%	1.117%	79.06	10.99
30. Slovenia	-10.559	$3.9 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.02%	0.712%	82.40	9.98
31. Spain	-10.827	$3.2 \times 10^{-5}$	$1.0 \times 10^{-5}$	10.04%	0.551%	84.92	9.96
32. Sweden	-11.898	$25.8 \times 10^{-5}$	$25.0 \times 10^{-5}$	11.40%	0.427%	85.34	8.77
33. Switzerland	-11.721	$25.9 \times 10^{-5}$	$25.0 \times 10^{-5}$	11.07%	0.424%	86.02	9.04
34. Taiwan	-9.849	$97.8 \times 10^{-5}$	$92.0 \times 10^{-5}$	8.89%	0.859%	83.56	11.25
35. U.K.	-11.386	$64.3 \times 10^{-5}$	$63.0 \times 10^{-5}$	10.73%	0.525%	85.30	9.32
36. U.S.A.	-10.275	$65.8 \times 10^{-5}$	$62.0 \times 10^{-5}$	9.42%	0.735%	84.01	10.62
37. Ukraine	-8.616	$223.6 \times 10^{-5}$	$204.0 \times 10^{-5}$	8.12%	1.914%	75.18	12.31
<b>Average:</b>	<b>-10.427</b>	<b><math>41.0 \times 10^{-5}</math></b>	<b><math>34.3 \times 10^{-5}</math></b>	<b>9.77%</b>	<b>0.844%</b>	<b>82.41</b>	<b>10.39</b>
Source: Human Mortality Database, Period 2011							

Table #2:						
CLaM Regression Line Around the World						
Variable	MALE			FEMALE		
	Coeff.	Std.Er	t-val.	Coeff.	Std.Er	t-val.
Intercept ( $L$ )	-0.851	0.193	-4.413	-1.289	0.705	-1.828
Slope: $(-x^*)$	<b>-97.964</b>	1.960	-49.987	<b>-96.360</b>	6.459	-14.919
Adj. $R^2$	98.58%			86.02%		
Range: $g[i]$	(7.12%, 11.40%)			(9.74%, 12.46%)		
Average: $g[i]$	G = 9.77%%			G = 10.90%%		
Plateau (+/-): $\lambda^*$	(0.245, 0.411)			(0.151, 0.410)		
Countries	$N = 37$			$N = 37$		

Note: These are the results from regressing the (male and female) Gompertz-Makeham (log) mortality intercepts  $\ln h[i]$  on the mortality growth rates  $g[i]$ , from the Human Mortality Database (HMD) for *period* mortality in 2011. This is the second phase regression.

