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Carl Pomerance* (carl.pomerance@dartmouth.edu), Department of Mathematics, Dartmouth College, Hanover, NH 03755. *A 1935 Erdős paper on prime numbers and Euler's function.*

Written at the age of 21, the 1935 *Quarterly* paper of Erdős, “On the normal number of prime factors of $p - 1$ and some related problems concerning Euler's φ -function,” is a treasure-trove of ideas. In this 9-page paper, he established the normal order of the number of prime factors of a shifted prime, he found the broad order of magnitude for the distribution of the range of Euler's function φ , and he gave a startling result on very popular values of φ . After outlining the main ideas in the paper, I will talk about some new developments (joint with Florian Luca) on the range of the iterated Euler function and the range of Carmichael's function λ . (Received January 27, 2009)