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Kurt Kreith* (kkreith@ucdavis.edu). *Moving Beyond Exponential Growth and Malthus in Secondary School Curricula*. Preliminary report.

In teaching exponential growth, it is common to make passing reference to Malthus and his controversial writings of 200 years ago. This raises the question of whether, in the context of secondary school mathematics, one can address human population dynamics more meaningfully than such a cursory treatment suggests. By way of moving in this direction, basic matrix arithmetic can be combined with mathematical ideas going back to Fibonacci to model populations while taking cohorts, delays, and diffusion into account. (Received October 14, 2011)