

learningCurve: An implementation of Crawford's and Wright's learning curve production functions

Bradley C. Boehmke¹ and Jason K. Freels¹

¹Air Force Institute of Technology

06 March 2017

Paper DOI: <http://dx.doi.org/10.21105/joss.00202>

Software Repository: <https://github.com/Auburngrads/learningCurve>

Software Archive: <http://dx.doi.org/10.5281/zenodo.570062>

Summary

`learningCurve` is an R package (R Core Team (2016)) that implements common learning curve production functions. It incorporates Wright's (Wright (1936)) and Crawford's (Crawford (1944)) learning curve functions to compute unit and cumulative block estimates for time (or cost) of units along with an aggregate learning curve. It also provides delta and error functions and some basic learning curve plotting functions along with functions to compute aggregated learning curves, error rates, and to visualize learning curves.

Crawford, J.R. 1944. "Learning Curve, Ship Curve, Ratios, Related Data." *Lockheed Aircraft Corporation*, 122–28.

R Core Team. 2016. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.

Wright, T.P. 1936. "Factors Affecting the Cost of Airplanes." *Journal of Aeronautical Sciences* 3 (4): 122–28. <http://arc.aiaa.org/doi/abs/10.2514/8.155>.