1145-VT-166   **Gerald Y. Agbegha*** (gagbegha@ggc.edu), Lawrenceville, GA 30043, **Anthony Thomas** (athomas1@ggc.edu), Lawrenceville, GA 30043, **Adrian Heinz** (aheinz@ggc.edu), Lawrenceville, GA 30043, and **Junkoo Park** (jpark15@ggc.edu), Lawrenceville, GA 30043. *A discrete Distribution on the Unit Interval and Its Application to Simulation of Sampling Distributions.* Preliminary report.

We introduce a discrete distribution on the unit interval. Under equiprobable assumptions, the distribution is asymptotically uniform. The remarkable thing about this distribution is that it enables us to develop fanned-out distributions of any desired shape over any interval on the real line. An immediate application of this distribution is its use in generating populations of desired shape on any interval of the real line for the purpose of simulating the sampling process. Such simulations help to elucidate concepts related to sampling distributions and in particular the central limit theorem. (Received August 14, 2018)