1160-60-38 **Andrew V Sills*** (asills@georgiasouthern.edu). *A q-Binomial Probability Distribution.*

q-analogs of special functions play a central role in mathematics and physics. Starting with Box and Cox in 1964, a variety of q-analogs of (continuous) probability distributions have been introduced, where the role of q is invariably as a parameter that can assume a range of real values, additional to the parameters of the original distribution. Here, I propose a q-analog of a discrete probability distribution, namely the binomial distribution. Here the "q" is a formal variable that encodes and preserves information from the binomial experiment associated with the binomial random variable, in its exponent and coefficient. (Received July 29, 2020)