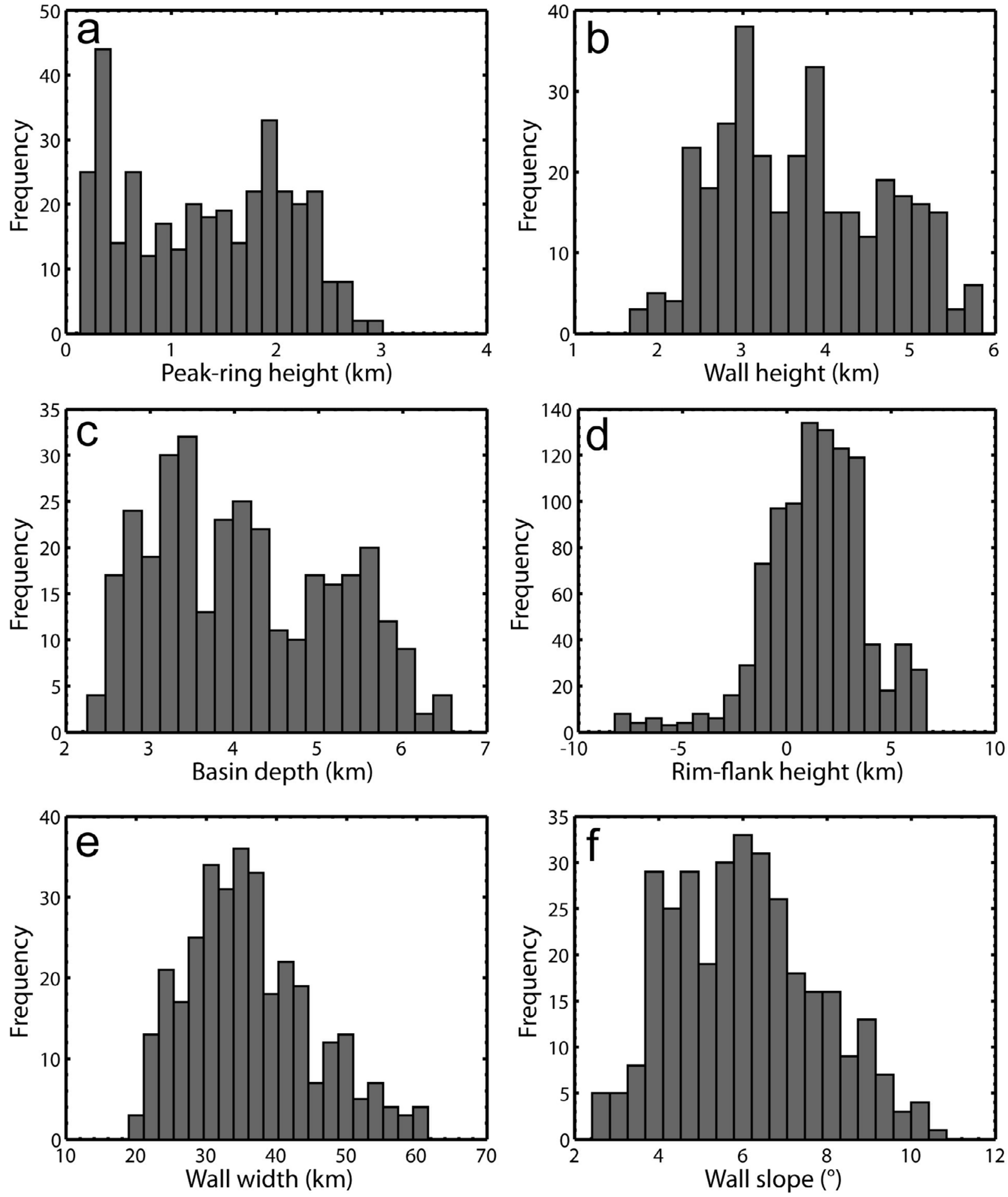

Figure 7. Histograms of calculated parameters over all azimuths for Schrödinger basin. The values are not normally distributed and commonly have long tails and wide distributions, indicating that use of the mean statistic is not a robust location parameter of the sample set.

1977] (Figure 9). All parameters are plotted as median values for reasons discussed in section 3 and shown in Table 2. Error bars in Figure 9 are the interquartile range for each median value and are used to represent the range of topographic variations as a function of azimuth around the crater (e.g., Figures 5 and 6). We also calculated a number of ratios from the median values of the summary statistics (Table 5). Due to the highly variable nature of the parameters used to calculate these ratios (i.e., large interquartile ranges), the error bars for the ratios can be very large and often distract from the trends revealed by the median values of these parameters. For clarity, we therefore chose to omit error bars from the plots of ratios (Figure 10). We also include qualitative trendlines in Figures 9 and 10 to facilitate discussion of our interpretations. Quantitative fits to the data are unwarranted due to the small sample size of the data and inherently variable nature of basin topography, which create large uncertainties during the fitting procedure. Despite these uncertainties, many new trends are observed (Figures 9 and 10), which extend the well-defined geometric trends for simple and complex craters out to basin-sized structures.

5.1. Basin Depth (*d*)

[30] Perhaps the most important and widely examined geometric parameter in crater morphological studies is the crater depth. While the trend of depth with increasing crater diameter is well characterized for simple and complex craters [*Pike*, 1974, 1977], the depths of larger basins on the Moon are poorly defined. *Williams and Zuber* [1998] (herein referred to