1125-VN-2686 **Samuel N Edwards*** (edwasa01@gettysburg.edu). *Comparing the Restricted Critical Number and Size of Weakly Zero Sum-Free Sets.*

We define a weakly zero-$h$-sum-free set as a set where no $h$-termed sum of distinct elements from the set equals 0. Given a group $G$ and a non-negative integer $h$, we investigate the maximum size of a subset of $G$ that is weakly zero-$h$-sum-free, denoted $\tau^\wedge(G,h)$. On a similar hand, we define the restricted $h$-critical number of a group $G$ to be the minimum value $m$ such that the restricted $h$-fold sumset of all $m$-subsets spans the entire group; this value is denoted $\chi^\wedge(G,h)$. These two distinct entities have a specific relationship— that is, $\tau^\wedge(G,h) \leq \chi^\wedge(G,h)-1$. We analyze the situations where $\tau^\wedge(G,h)$ is strictly less than $\chi^\wedge(G,h)-1$. (Received September 20, 2016)