We give explicit, infinite families of MSTD (more sums than differences) sets. There are enough of these sets to prove that there exists a constant $C$ such that at least $C/r^4$ of the $2^r$ subsets of $\{1, \ldots, r\}$ are MSTD sets; thus our family is significantly denser than previous constructions (whose densities are typically at most $f(r)/2^{r/2}$ for some polynomial $f(r)$). (Received September 11, 2008)