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**Mark L. Lewis\*** ([lewis@math.kent.edu](mailto:lewis@math.kent.edu)), 1300 Lefton Esplanade, Kent, OH 44242. *Maximal abelian subgroups of semi-extraspecial groups and partitions by centers of centralizers.*

A  $p$ -group  $G$  is semi-extraspecial if  $G$  is a nonabelian  $p$ -group for some prime  $p$  and  $G/N$  is extraspecial for every subgroup  $N$  that is maximal in  $Z(G)$ . Verardi found an upper bound for the order of a maximal abelian subgroup of a semi-extraspecial group. We found a lower bound for the order of a maximal abelian subgroup of a semi-extraspecial group. We will show that semi-extraspecial groups are partitioned by the centers of the centralizers of noncentral elements. Verardi has shown that there is an upper bound on the order of these centralizers in semi-extraspecial groups. We will show that Verardi's bound can be improved in several cases. Finally, we will consider other groups that are partitioned by the centers of the centralizers of noncentral elements. (Received September 06, 2018)