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**Susanna Fishel\*** (sfishel1@asu.edu), **Elizabeth Milicevic**, **Rebecca Patrias** and **Bridget Tenner**. *Enumerations Relating Braid and Commutation Classes*.

The set of reduced words of a permutation possesses a rich combinatorial structure that has been studied from many different perspectives. Quotients of this set under the Coxeter relations hold particular interest, but most work has focused on the commutation classes. I will discuss recent work with Mile 'cević, Patrias, and Tenner. We obtain an upper and lower bound for the number of reduced words for a permutation in terms of the number of braid classes and the number of commutation classes of the permutation. We classify the permutations that achieve each of these bounds, and enumerate both cases. (Received March 03, 2020)