1030-16-232 Andrea Jedwab* (jedwab@usc.edu) and Susan Montgomery. Representations of some Hopf algebras associated to the symmetric group.

The simple modules over a bismash product $k^G \# kF$ are induced up from simple modules over the stabilizers in F of elements of G. This allows us to study the representations of a bismash product by looking at the representations of smaller groups. We study the representations of two dual bismash products arising from factorizations of the symmetric group. We show that one of them is totally orthogonal, that is, all its representations have Frobenius-Schur indicator equal to 1. However the other bismash product, its dual Hopf algebra, admits representations with indicator 0. (Received August 03, 2007)