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Tricia Muldoon Brown* (patricia.brown@armstrong.edu), Department of Mathematics, Armstrong Atlantic State University, 11935 Abercorn St, Savannah, GA 31419. *An excedance statistic for signed permutations*. Preliminary report.

We define an excedance statistic for the group of signed permutations and use this statistic to describe the h -vector of the barycentric subdivision of the d -dimensional cube in a result analogous to Stanley's result for the barycentric subdivision of the simplex. This provides a relationship between the new excedance statistic and the Type B Eulerian numbers. Further we discuss applications of the signed excedance statistic to the local h -vector of this subdivision. (Received January 18, 2011)