

1096-H1-1543

James R. Bozeman* (james.bozeman@lyndonstate.edu), Mathematics and Computer Science, Lyndon State College, 1001 College Road, Lyndonville, VT 05851, and **Timothy Nicholson, Matthew Pilling** and **Melissa A. Rosato**. *Use Convexity, Not 'Compactness', When Measuring the Shape of Legislative Districts.*

Many states use 'compactness' measures when constructing political districts. Numerous studies have pointed out the many flaws associated with these methods. More recently measures which use the mathematical idea of convexity have been examined. In this paper we exhibit a convexity measure which is better than, or at least as good as, other methods in the literature. This technique can then be used to decide if proposed districts are *nicely shaped* or not. A *poorly shaped* district may indicate partisan gerrymandering, which many states are trying to avoid. (Received September 17, 2013)