1115-05-211 **Mark Shattuck*** (`shattuck@math.utk.edu`), Knoxville, TN 37919. *Pattern Avoiding Set Partitions and Sequence A005773.*

Let L_n, $n \geq 1$, denote the sequence which counts the paths from the origin to the line $x = n - 1$ using $(1,1)$, $(1,-1)$, and $(1,0)$ steps that never go below the x-axis (sometimes called *extended Motzkin paths* or *Motzkin left factors*). The L_n count, among other things, certain restricted subsets of permutations and Catalan paths and occur as entry A005773 in OEIS. Here, we provide new combinatorial interpretations for these numbers in terms of partitions of finite sets by identifying four classes of partitions, each avoiding two classical patterns of length four, that are enumerated by the sequence L_n. Our proof in a couple of cases is combinatorial and identifies bijections between the class of partitions in question and extended Motzkin paths. In the two other cases, our proof is analytic and makes use of the kernel method to solve functional equations which are satisfied by the generating functions. We also give some further results concerning the avoidance of multiple patterns by finite set partitions. (Received September 18, 2015)