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**Yonah Biers-Ariel\*** (biersay@whitman.edu) and **Elizabeth Kelley**. *Packing Sequences Into Words*.

If we consider a word of length  $n$  on the alphabet  $\{0, 1\}$ , we can find the number of distinct subsequences contained in that word. It is already known that the expected number of distinct subsequences is asymptotically  $1.5^n$  when each letter takes on the value 1 with probability .5. We allow each letter to take on the value 1 with probability  $\alpha$ , and find the expected number of distinct subsequences in this more general case.

We attempt to further generalize this to words generated by Markov chains, and obtain partial results in this case. (Received September 10, 2014)