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Aaron D. Jaggard* (aaron.d.jaggard@gmail.com), Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395. *An almost bijective proof of an asymptotic property of partitions.*

Let \mathcal{P}_n be the set of all distinct ordered pairs (λ, λ_i) , where λ is a partition of n and λ_i is a part size of λ . We give a combinatorial proof that, for a pair (λ, λ_i) chosen uniformly at random from \mathcal{P}_n , the probability that the multiplicity of λ_i in λ is 1 tends to $1/2$ as $n \rightarrow \infty$. This is inspired by work of Corteel, Pittel, Savage, and Wilf, who investigated part multiplicities under a different distribution on \mathcal{P}_n . (Received September 27, 2005)