1163-60-1053 **Joseph Paul Squillace*** (josephps@uri.edu), 138 Tyler Hall, 9 Greenhouse Road, University of Rhode Island, Kingston, RI 02881. *On the dependence of the component counting process of a uniform random variable.*

We are concerned with proving the existence of joint distributions of discrete random variables M and N subject to constraints of the form $\mathbb{P}(M = i, N = j) = 0$. In particular, the variable M has an infinite range and consists of an independent component counting process $(Z_k)_k$, and the other variable N is uniformly distributed and consists of a dependent component counting process $(C_k)_k$. The constraints placed on the joint distributions of M and N will require, for all but one j in the range of N, $\mathbb{P}(M = i, N = j) = 0$ for infinitely many values of i in the range of M, and the corresponding values of i depend on j. The constraints imposed on our joint distribution are $\mathbb{P}(M = i, N = j) = 0$ whenever $\sum_k (C_k - Z_k)^+ > 1$ for any realization of $M = i$ and $N = j$. To prove the existence of such joint distributions, we introduce the notion of pivot mass which is then combined with a theorem proved by Strassen on the existence of specified joint distributions with known marginals. We are providing a partial answer to the question "how much dependence is there in the process $(C_i(n))_{i \leq n}$?" (Received September 14, 2020)