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Deepesh Singhal* (singhald@uci.edu). *Distribution of genus among numerical semigroups with a fixed Frobenius number.*

A numerical semigroup is a sub-semigroup of the natural numbers that has a finite complement. The size of its complement is called the genus and the largest number in the complement is called its Frobenius number. We consider the set of numerical semigroups with a fixed Frobenius number f and analyse their genus. We show that almost all numerical semigroups with Frobenius number f have genus close to $\frac{3f}{4}$. We denote the number of numerical semigroups of Frobenius number f by $N(f)$. While $N(f)$ is not monotonic we prove that $N(f) < N(f + 2)$ for every f . (Received February 21, 2021)