It is known since Faltings that hyperelliptic curves have finitely many rational points, and several heuristics suggest that 100% of them have no rational points apart from $\infty$. Using similar heuristics, we expect 100% of the hyperelliptic curves to have no nontrivial degree-$d$ points. We will discuss how Chabauty’s method could be applied to families of hyperelliptic curves to obtain a bound on the number of non-trivial degree-$d$ points on a certain family of hyperelliptic curves. This can be combined with the recent result of Bhargava and Gross on the distribution of 2-Selmer elements of hyperelliptic curves, allowing one to take the first steps towards describing the statistics of non-trivial degree-$d$ points.