We use rational parametrizations and Fourier techniques to make progress on an open question about counting rational points on plane curves. Heath-Brown proved that for any $\epsilon > 0$ the number of rational points of height at most $B$ on a degree $d$ plane curve is $O_{\epsilon,d}(B^{2/d+\epsilon})$ (the implied constant depends on $\epsilon$ and $d$). It is known that Heath-Brown’s theorem is sharp apart from the $\epsilon$, but in certain cases the bound has been improved to $\epsilon = 0$. The open question is whether or not the bound with $\epsilon = 0$ holds in general. We shed additional light on this open problem by giving, in certain cases, an improved upper bound which is inversely proportional to a positive power of the resultant of the curve. (Received September 09, 2008)