Sections over curves and rational connectivity

This talk will be a sequel to the talk given by Joe Harris in the fall. I will describe a necessary and sufficient condition, in terms of rationally connected subvarieties, for a morphism $X \to B$ to admit a section when restricted to an arbitrary curve in $B$. This result can be used to deduce the existence of a one-parameter family of Enriques surfaces with no section, answering negatively a question of Serre. The talk will be based on joint work with Joe Harris, Barry Mazur, and Jason Starr.