Dianna J. Spence* (djspence@ung.edu), University of North Georgia, Department of Mathematics, 82 College Circle, Dahlonega, GA 30597, and Brad Bailey. Enhancing the Benefits of Discovery Projects in Elementary Statistics. Preliminary report.

We review the distinguishing features of highly student-centered discovery projects, in which students actively design and carry out a statistical investigation in the context of a real-world application of their own choosing. We then describe studies in which the use of such projects has been examined and their impact on student learning and dispositions evaluated in comparison to courses in which such projects are not used. Quantitative and qualitative analyses address additional factors which may govern the impact of these projects on student outcomes; among these factors are specific characteristics of students, instructors, and implementation details of the projects themselves. Preliminary observations are also shared about how these projects have been modified when conducted in the context of a curriculum that includes randomization-based inference, and how project outcomes were strengthened as a result. (Received September 12, 2014)