In American football, there is a long-standing debate over the circumstances in which a two-point conversion attempt is advisable following a touchdown. Much of the study of this problem has involved NFL football, in which both kickers and passers have high levels of skill. We will consider major collegiate (NCAA Division I FBS) football, which has lower rates of success on two-point conversions and greater uncertainty in the kicking game. Using a decade’s worth of data, we discuss the observed two-point decision behavior of college coaches in the 4th quarter, and develop a model to suggest optimal choices. (Received September 25, 2018)