A relationship between real, complex, and quaternionic vector fields on spheres is given by using a relationship between the corresponding standard inner products. The number of linearly independent complex vector fields on the standard \((4n - 1)\)-sphere is shown to be twice the number of linearly independent quaternionic vector fields plus \(d\), where \(d = 1\) or \(3\). (Received June 13, 2016)