Recent work of both Gabai and Schneiderman-Teichner on the smooth isotopy of homotopic surfaces with a common dual has reinvigorated the study of concordance invariants defined by Freedman and Quinn in the 90's, along with homotopy theoretic isotopy invariants of Dax from the 70's. After offering geometric interpretations of both the Freedman-Quinn and Dax invariants and outlining some recent results, we will showcase examples in which each does not vanish and so obstructs isotopy between pairs of homotopic surfaces.