Brown and Goodearl conjectured that any noetherian Hopf algebra should have finite injective dimension. This conjecture is known to be true in certain cases, in particular for affine polynomial identity Hopf algebras. Weak Hopf algebras are an important generalization of Hopf algebras. Just as for Hopf algebras, the category of modules over a weak Hopf algebra has a monoidal structure, and this has important consequences for homological properties of the algebra. We study the extension of the Brown-Goodearl conjecture to the case of weak Hopf algebras, and show that a weak Hopf algebra which is finite over an affine center has finite injective dimension and is a direct sum of AS Gorenstein algebras. (Joint with Daniel Rogalski and James Zhang.) (Received September 02, 2019)