1014-13-617 **Giulio Caviglia** and **Manoj Kummini*** (kummini@math.ku.edu), 1460 Jayhawk Blvd Rm 405 Snow, Dept of Math., The Univ of Kansas, Lawrence, KS 66044-7523. *Some Ideals with Large Projective Dimension.*

For an ideal I in a polynomial ring over a field, a monomial support of I is the set of monomials that appear as terms in a set of minimal generators of I. Craig Huneke asked whether the size of a monomial support is a bound for the projective dimension of the ideal. We construct an example to show that, if the number of variables and the degrees of the generators are unspecified, the projective dimension of I cannot be bounded by any polynomial function of the size of a monomial support. The ideal we construct is generated by monomials and binomials and has a monomial support of nd terms and projective dimension n^d, where $n \geq 2, d \geq 2$ are arbitrary. (Received September 22, 2005)