In this paper, we estimate the causal impact of yearly rural migrant inflows on Chinese manufacturing firms between 1998 and 2007. We use exogenous variation in agricultural income combined with a gravity model to construct an instrument for migration inflows. We find that migration decreases labor costs, and increases manufacturing employment. Firm production becomes more labor intensive and productivity falls. At the industry level, there are more medium-sized firms, and the left tail of the productivity distribution thickens. Our results suggest that greater access to unskilled labor contributes to low levels of firm productivity in developing countries.