

Labor Shortage and the Production and Trade of Labor-Intensive Goods: Evidence from U.S. Agriculture

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Abstract

U.S. fruit and vegetable (FV) production has declined in recent decades while imports have significantly increased. The U.S. relies heavily on Mexican farm workers for FV production, a substantial percentage of whom are undocumented in the U.S. Socioeconomic and political changes on both sides of the border have led to a sharp decline in their number in the U.S., resulting in seasonal farm labor shortages. This paper is the first to establish the relationship between seasonal farm labor shortages and trade by analyzing whether intensified immigration policy (IIP) exacerbating these shortages affects FV trade at national and international levels. We exploit the spatiotemporal variations in IIP to demonstrate that a state's FV production drops with IIP. Using gravity models with the Poisson Pseudo-Maximum Likelihood (PPML) estimator, we then show that IIP does not decrease international exports of FVs, but it does reduce interstate FV trade due to supply-side constraints, indicating a reduction in the domestic supply of U.S.-produced FVs. To mitigate the local reduction in FV supply, states with higher IIP increase their imports both from other U.S. states with lower IIP and foreign trading partners. We also find evidence that police-based enforcement drives most of these effects rather than employment-based measures.

Keywords: U.S. farm labor, immigration enforcement, agricultural trade, exports, imports, fruits and vegetables, Poisson Pseudo-Maximum Likelihood

JEL Codes: F10, F16, K37, Q10, Q17