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# Bringing the firms into globalization research: The effects of foreign investment and exports on wages in Mexican manufacturing firms

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ABSTRACT

Researchers specializing in organizations and labor markets have paid insufficient attention to the effects that foreign ownership of a firm and its orientation towards export production may have on the wages it pays to its workers. Using information from a nationally-representative sample of manufacturing firms in Mexico, a paradigmatic case of a developing country that is highly integrated into world markets, we find that foreign-owned and export-oriented firms pay considerably more than nationally-owned firms engaged in the production of goods for sale in the domestic market. Second, beyond paying higher wages to their workers, foreign-owned firms also raise the wages paid by domestic firms operating in the same regional labor markets. The wage premium in foreign and export-oriented firms cannot be explained by their size, industry, geographical location, productivity, use of advanced technology, or the sociodemographic composition of their workforce. We find evidence that wages in foreign-owned companies in Mexico are dependent on the country of origin of the capital investment. A greater difference between the industry-specific wages paid in the country of ownership and Mexico is associated with a higher wage premium in Mexican affiliates. Future work should strive to link information from foreign-owned affiliates with their parent companies abroad.



## 1. Introduction

A rich tradition of sociological research has shown how workers' earnings are greatly influenced by the types of organizations they work for (Baron and Bielby, 1980; Kalleberg et al., 1981; Baron, 1984; Sørensen, 1994; le Grand et al., 1995; Kalleberg and Van Buren, 1996). Researchers have, for example, demonstrated that workers in large firms receive significantly higher wages even once other firm and worker characteristics are taken into account. (Stolzenberg, 1978; Brown et al., 1990; Hollister, 2004). Larger firms also pay more fringe benefits and provide workers greater opportunities for promotion (Kalleberg and Van Buren 1996). Other firm-level research has examined how the demographic composition of business organizations affects wages (Reskin et al., 1999). However, researchers in this tradition have so far failed to examine the effect that foreign ownership and export production have on workers' wages. Do foreign and export-oriented firms pay workers more than comparable nationally-owned firms producing goods for sale in the domestic market, and if so, why? Second, what broader effects do these kinds of firms have on wages? In particular, do foreign and export firms raise average wage levels in the local labor markets in which they operate, and do they increase income inequality? This paper seeks to answer these questions using a nationally-representative survey of manufacturing firms in Mexico, a paradigmatic case of a developing country that is highly integrated into world markets.

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Whether multinational companies operating in developing countries pay higher wages than domestic firms and whether they help raise wages more generally is particularly important given the dramatic increase in foreign capital flows and international trade worldwide. Our objective is therefore to "bring the firms in" to globalization research. The labor market approach we propose has the advantage of empirically grounding the globalization debate which has often been carried out in very broad, generalized terms. At the same time, our analysis also seeks to inform labor market research by demonstrating how foreign ownership of a firm and its focus on export production are important predictors of wages.

While sociologists have been slow to recognize the importance of factors such as foreign investment on firm-level outcomes, a strand of economic research has found that workers employed in foreign-owned firms receive higher wages, not only in developing countries such as Mexico, but in developed ones as well (Buckley and Enderwick, 1983; Wilmore, 1986; Aitken et al., 1996; Lipsey and Sjöholm, 2001). Yet this difference in wages between foreign and domestic firms has not been adequately explained by traditional economic approaches which attribute the higher wages in foreign firms to higher productivity. One reason economists are preoccupied with the higher wages paid by foreign and export-oriented firms is that they appear to challenge standard economic theories. If markets are indeed the driving force behind wages there is no obvious reason why the nationality of ownership or the destination of sales should matter. Why should a multinational firm moving its operations abroad pay above-market wages in its new country of operation? As we will demonstrate below, factors commonly used by economists to explain higher wages such as a firm's productivity level, are insufficient to explain the wage premium in foreign and export firms. This wage premium therefore presents an opportunity for sociologists specializing in organizations and labor markets to make a significant contribution.

A disparity in wages between foreign and nationally-owned firms and between those that are engaged in export and non-export production might also suggest one way in which economic globalization increases inequality in developing countries, especially if the relative payoffs to employment in the foreign and export sectors are greater for higher occupational groups. In the analysis below we will therefore examine the wage premium paid by foreign-owned and export firms to workers in different occupational levels. Finally, if the presence of foreign firms increases the wages paid by other companies operating in the same regional labor markets, then foreign investment may also contribute to a disparity in income between regions receiving large amounts of foreign investment, such as Mexico's northern border, and other parts of the country. In the final part of our paper we will therefore test whether foreign firms have a positive spillover effect on the wages paid by other companies.

Because of the remarkable economic transformation that Mexico has undergone over the past two decades from a relatively protected economy to one open to external trade and foreign investment, Mexico constitutes an important case to investigate the effects of economic globalization on workers' wages. Indeed, few developing countries have become so thoroughly integrated into the world economy. As of 2003, Mexico had signed 11 free trade agreements with 32 countries in addition to being a founding member of the World Trade Organization (López-Córdova, 2003). The country experienced a particularly dramatic increase in international trade following the enactment of the North American Free Trade Agreement (NAFTA) in 1994. The agreement reduced tariffs on trade with the United States and Canada, forming the second largest trading bloc in the world. Fueled in part by NAFTA as well as by government policies lifting restrictions on foreign participation in the economy, foreign investment in the Mexican manufacturing sector rose considerably during the 1980s and 1990s, especially in the in-bond industries known as *maquiladoras*.[1]

## 2. Why foreign ownership may affect wages

Sociologists have often been critical of the effects of foreign investment and international trade on income inequality in developing countries (Bornschier and Chase-Dunn, 1985; Dixon and Boswell, 1996; Alderson and Nielsen, 1999). Various studies have demonstrated a positive association between foreign investment and higher levels of income inequality. By contrast, much less attention has been placed on the higher wages paid by foreign and export-oriented firms. One important obstacle to the analysis of the wage premium in foreign and export firms is the scarcity of firm-level information that can allow researchers to control for other firm-specific factors that might account for the wage premium. Researchers have often had to rely on employment surveys which typically contain information from a sample of workers employed in different establishments and rarely include important information about the firms they work for such as their size, level of productivity, work organization, or use of advanced technology. Our access to firm-level data for a representative sample of manufacturing firms in Mexico allows us to more rigorously test alternative explanations for why foreign and export firms pay higher wages. In this section we propose six hypotheses for the wage premium in foreign firms derived from previous findings in labor market research. To simplify the presentation, the hypotheses are formulated in terms of the foreign ownership of firms, but they extend to export firms as well.

First, one of the most consistent findings in labor market research is that larger firms pay higher wages (Stolzenberg, 1978; Kalleberg and Van Buren, 1996; Hollister, 2004). Since foreign-owned manufacturing firms are considerably larger on average than domestic firms in developing countries, we may expect the wages of foreign firms to be higher simply as

[1] Maquiladora plants in Mexico assemble goods for export to foreign countries using materials that are imported temporarily for this purpose. Special legislation allows maquiladoras to import materials and machinery duty free so long as the assembled products are exported. Initially, maquiladoras were only allowed within 20 km of the US border under conditions similar to Export Processing Zones (EPZ) elsewhere in the world. Current legislation allows the establishment of maquiladoras in other parts of Mexico (INEGI, 2005).