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Key words: Chinese import competition, employment, labor market, informality

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ABSTRACT

In this paper, we relate outcomes of El Salvador's local labor markets to their exposure to Chinese import competition. Using annual household surveys for 2000 to 2014, we construct a panel dataset of 61 local labor markets over 15 years to study three sets of outcomes: manufacturing employment, labor informality, and average wage. We find that rising Chinese import competition have negatively affected manufacturing and nontradable employment. Some workers were pushed into agriculture, while others were forced out of the active labor force. Further analysis shows that it is the unskilled workers that were pushed out of manufacturing, while more skilled and professional workers were not affected by Chinese competition. We also find that as workers, especially low-skill ones, have shifted from manufacturing into agriculture due to Chinese import competition, informality has decreased in the former sector and increased in the latter. This change in labor informality is mainly observed among unskilled workers. The informality of workers with high-school diplomas is not affected by competition from China. We do not find that Chinese import competition has a significant impact on the average wages of formal or informal workers or on those of unskilled workers at the conventional significance level.

JEL classifications: F14, F16, J23, J46

Key words: Chinese import competition, employment, labor market, informality

1. INTRODUCTION

In almost every country, large-scale, rising imports from China have been one of the most significant economic events of the past two decades. Due to exceptionally high rates of economic growth, China has been the second-largest economy in the world since 2010. Through increasingly deep engagement in international trade, its huge stock of relatively low-wage labor has sparked a set of economic shocks in many local labor markets worldwide. These shocks have trigged a substantial amount of research on the part of both trade and labor economists seeking to study the effects of imports from low-wage China on labor-market outcomes, especially in developed countries. However, until recently, developing countries have been largely ignored by this rapidly growing literature.

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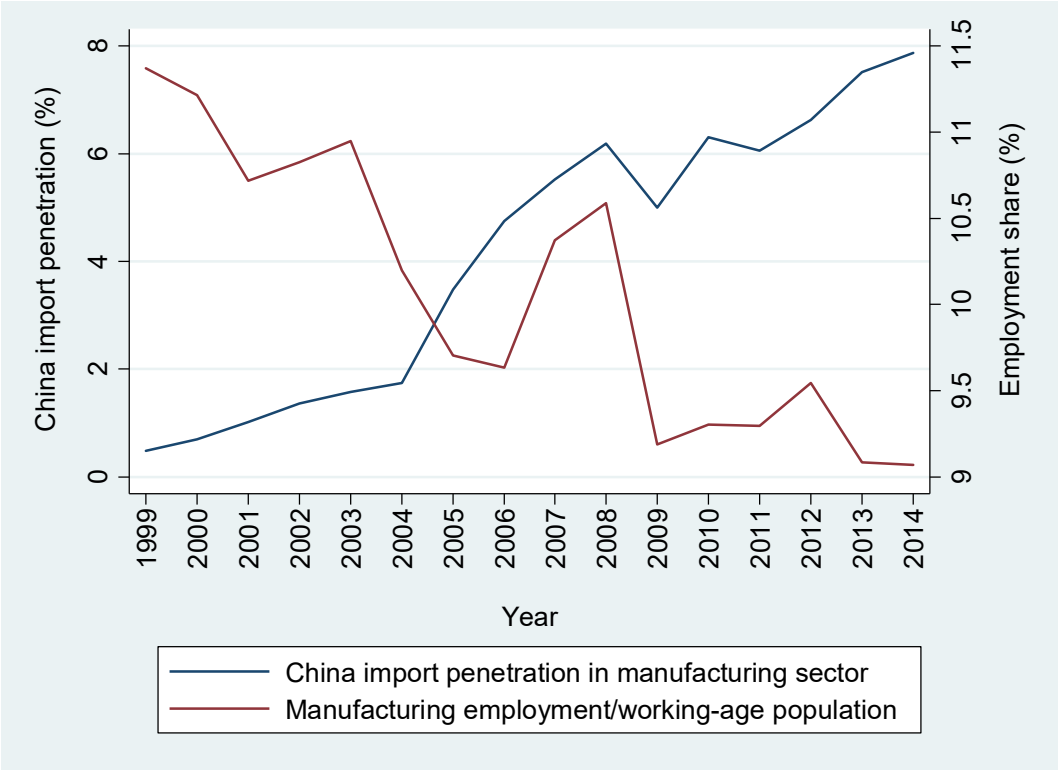
As a low-middle-income developing country, El Salvador has not been insulated from Chinese competition. As shown in figure 1, Chinese import penetration in El Salvador's manufacturing sector has increased from 0.5% in 1999 to 7.9% in 2014. Over the same period, the fraction of El Salvador's working-age population employed in manufacturing fell by one-fifth, from 11.4% to 9.1%, even though there were some upward fluctuations during the Great Recession. In this paper, we relate labor-market outcomes across different localities in El Salvador to rising Chinese import competition in 2000–2014. A local labor market is defined as a city or a compound of several cities.[1] Local labor markets differ in their exposure to Chinese import competition because of regional variations in the local employment composition within industries.

FIGURE 1. CHINESE IMPORT PENETRATION AND SHARE OF WORKING-AGE POPULATION EMPLOYED IN EL SALVADOR'S MANUFACTURING SECTOR



Source: Authors' calculation based on COMTRADE and El Salvador Household Survey data.

We study the impact of Chinese import competition on three sets of labor-market outcomes: manufacturing employment, labor informality, and average wages. We find that rising Chinese import competition negatively affects employment in manufacturing and the nontradable sector. Some workers are pushed into the agriculture sector, while others are forced out of the active labor force. Further analysis shows that it is the unskilled workers that are pushed out of manufacturing, while more skilled and professional workers are not affected by Chinese competition. As to labor informality, we find that as workers (especially unskilled workers) have been pushed from manufacturing into agriculture by Chinese import competition, informality has decreased in the former sector and increased in the latter. The levels of informality among workers with high-school diplomas (HSDs) is not affected by Chinese competition. We do not find a significant impact on wages at the conventional significance level.

Our paper contributes to the growing literature that examines the impact of Chinese import competition on labor markets. This includes papers that have studied the impact on manufacturing employment (Pierce and Schott, 2012; Autor et al., 2013), worker earnings (Pessoa, 2014, Costa et al., 2016), skill upgrading (Hsieh and Woo, 2005, Mion

[1] Refer to section 2 for a detailed description of the local labor market.

and Zhu, 2013), firm and product selection (Iacovone et al., 2013), and innovation (Bloom et al., 2016). It also fits into a wider literature studying the impact of trade shocks on labor markets. Several papers investigate the effect of Brazil's trade liberalization in the early 1990s on workers (e.g., Dix-Carneiro, 2014; Dix-Carneiro and Kovak, 2015a and 2015b; Gonzaga et al., 2006; Helpman et al., 2012; Kovak, 2013; and Menezes-Filho and Muendler, 2011). It also relates to the smaller body of literature on trade and informality, including Goldberg and Pavcnik (2003), McCaig and Pavcnik (2014), Nataraj (2011), and Paz (2014).

The rest of the paper is structured as follows: section 2 describes different datasets used in the calculation and presents the summary statistics for our main variables, section 3 presents the econometric model used for the analysis, section 4 discusses the main findings, and section 5 concludes.

2. DATA AND SUMMARY STATISTICS

In this section, we provide details on the data and the methodology used to construct the labor market, Chinese import competition, and control variables.

A. Data sources

To measure labor-market outcomes, we use the individual-level and socioeconomic data from El Salvador's Multiple Purpose Household Survey (*Encuesta de Hogares de Propósitos Multiples*) from 2000 to 2014, carried out by the Ministry of the Economy (*Ministerio de Economía*). We restrict the sample to the subpopulation most likely to participate in the labor market and define the working-age population as individuals between 15 and 64 years old. We take into consideration the individual expansion factor in all the calculations.

In defining the local labor market, we must take certain limitations in the data into consideration. The sample of cities included in the survey has changed between 2000 and 2014. For example, 111 cities were included in 2000 and 227 cities in 2014. However, only 64 cities were included from 2005 to 2008 and in 2010 because the nonrepresentative cities are lumped together. This includes the 50 largest cities in El Salvador, plus one compound city for the rest of the state for each of the country's 14 states. Of the 50 largest cities, the data for Ciudad Barrios in San Miguel and San Tomás in San Salvador are missing from 2000 to 2002, and data for San Luis La Herradura in La Paz is missing for 2008 and 2010. To make the sample consistent over time, we included the above three cities in the compound city of their corresponding states. This approach yields 61 labor markets which form the basis of our empirical analysis. Taking advantage of the survey's question on access to social security, we used a social protection-related definition of informality: a worker is informal if she/he is does not have social security coverage.

Our empirical strategy requires matching the sector classification of workers to that of the trade data. In the household survey, every individual is asked about her/his sector of occupation. This question is included in all the sampled years. However, the sector classification used changes over time. From 2000 to 2004, it uses 3-digit ISIC3 but changes to 4-digit ISIC3 between 2005 and 2008. From 2009 onwards, it uses 4-digit ISIC4. To keep the sector definitions consistent over time and avoid ambiguities in matching worker classifications to trade data, we define 23 tradable goods sectors, including 3 for agriculture, 1 for mining, and 19 for manufacturing (see table 1 for the full list). The data on international trade in goods is from the UN Comtrade Database. The trade data is converted from 6-digit HS to these 23 tradable goods sectors.

In line with Autor et al. (2013), Chinese import competition is measured by the following:

$$RCS_{s,t} = \sum_j \frac{L_{s,j,2000}}{L_{j,2000}} \frac{IMPC_{j,t}}{L_{s,2000}}, (1)$$

where, $L_{s,j,2000}$ is the size of the workforce employed in sector j of labor market s in year 2000, the beginning of the sample period, while $L_{j,2000}$ is El Salvador's total employment in sector j in year 2000 and $L_{s,2000}$ is the total employment in labor market s in year 2000. $IMPC_{j,t}$ is El Salvador's imports from China in sector j in year t. To put

it simply, this measure of Chinese import competition is labor market s's per-worker imports from China, a weighted average across all sectors.

The import competition from the rest of the world (excluding China) is:

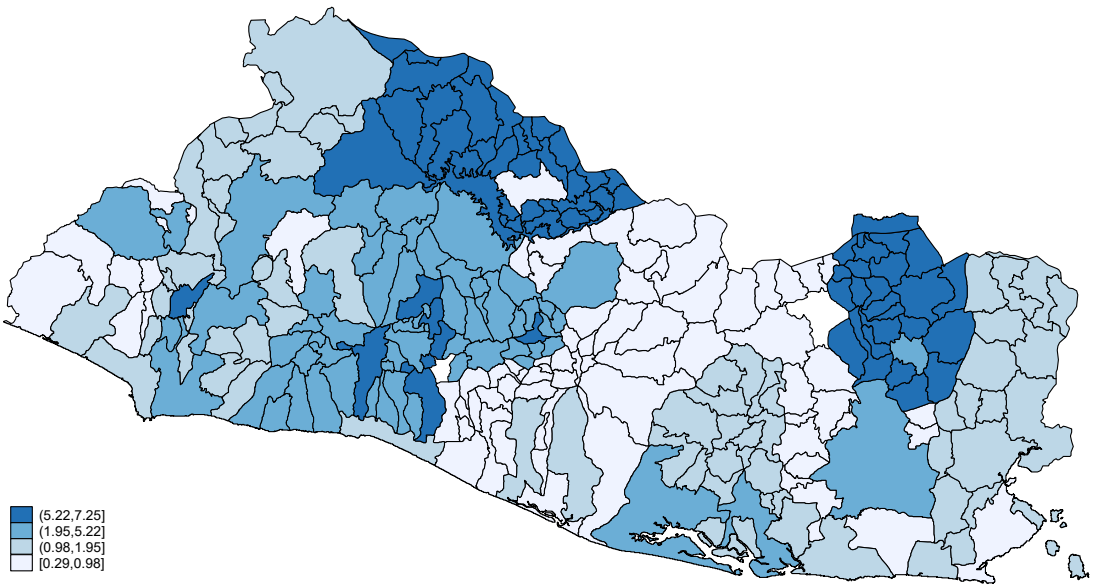
$$RIMP_{s,t} = \sum_j \frac{L_{s,j,2000}}{L_{j,2000}} \frac{IMPR_{j,t}}{L_{s,2000}}, (2)$$

where $IMPR_{j,t}$ is El Salvador's imports from the rest of the world in sector j in year t. We denote both $IMPC_{j,t}$ and $IMPR_{j,t}$ in US$100.

B. Summary statistics

Table 2 reports some descriptive statistics (mean and standard error in parenthesis) for the main variables. Chinese import competition in El Salvador increased substantially between 2000 and 2014. In 2000, the average per-worker imports from China for all 61 labor markets were only US$10.[2] In 2014, this value rose to US$300.[3] This increase was heterogeneous across markets. As shown in column 1 of table 2, the average top quantile of per-worker imports from China increased from US$20 to US$570 in the same period. This change is twice as great as the average increase across all markets. Figure 2 depicts the regional distribution of the increase in Chinese import competition to show the heterogeneity of the "China shock" that each labor market faced in the period. The most affected were those in the Metropolitan Area of San Salvador (AMSS) and the states of Chalatenango and Morazán. As shown in column 2, El Salvador's imports from other countries (excluding China) increased in this period as well, but at a much smaller rate. They increased by US$2,140, a 175% increase on average across all the markets, as compared with 2,900% increase in per-worker imports from China.

FIGURE 2. CHANGE IN PER-WORKER IMPORTS FROM CHINA BETWEEN 2000 AND 2014



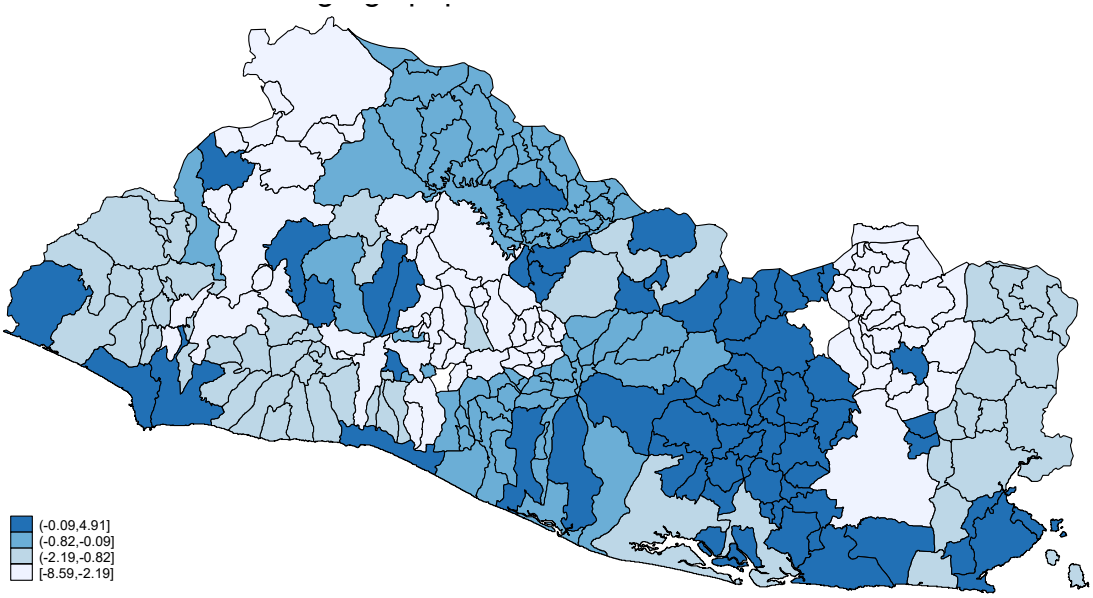
Source: Authors' calculation based on El Salvador Household Survey data.

In column 3, we present the summary statistics of the share of working-age population employed in manufacturing. Between 2000 and 2014, the average share across all markets decreased from 10.7 to 9.1%, a 1.5-percentage-point reduction over 14 years. The average share of working-age population employed in manufacturing across the top quantile of the labor markets (in terms of per-worker Chinese imports) is generally higher than for all markets—15.4%

[2] This is calculated as 0.1*100.
[3] This is calculated as 3.0*100.

in 2000 and 11.7% in 2014. However, it decreased by 3.8 percentage points over this period, more than twice the change across all labor markets. Figure 3 provides a map of these changes at the labor market level, which illustrates significant heterogeneity across El Salvador.

FIGURE 3. CHANGE IN SHARE OF MANUFACTURING EMPLOYMENT AMONG WORKING-AGE POPULATION BETWEEN 2000 AND 2014



Source: Authors' calculation based on El Salvador Household Survey data.

Labor informality—as measured by the share of workers with no social security coverage—is summarized in column 4. Averaged across all local labor markets, labor informality in El Salvador decreased from 73.4% in 2000 to 71.0% in 2014, a 2.4-percentage-point reduction over 14 years. For the top quantile markets, the average informality is about 10 percentage points lower in both 2000 and 2014. The reduction over the 14 years is 3.1 percentage points, which is slightly greater than that of all the local markets. As shown in column 5, the average monthly wage increased in 2000–2014. Although the wage is higher for the top-quantile labor markets (in terms of per-worker Chinees imports) than for all the markets, the wage increase over the 14 years is the same for both groups.

Columns 6 to 9 present the summary statistics for three labor-market-level characteristics, which will be used as control variables in the econometric model. The working-age population and the share of workers employed in the nontradable sector increased in the period. The average increase in the working-age population across all markets over the 14 years in question is slightly greater than the increase across the top quantile. The average increase in the share of nontradable-sector workers across all labor markets is smaller than the increase across the top quantile. The average share of rural residents across all markets decreased from 42.7% to 39.7%, a 3-percentage-point reduction over 14 years. The average share of rural residents across the top quantile is much smaller than the share of rural residents for all labor markets in both years, but it increased by 1.9 percentage points over the 14 years. The average share of the working-age population with HSDs is higher in the top quantile than in all markets in both years. This share increased by 10.8 and 9.2 percentage points, respectively, over the 14 years.

3. EMPIRICAL STRATEGY

Comparing figures 2 and 3, it is not hard to notice the following pattern: the labor markets experiencing the largest increases in Chinese import competition tend to have the largest drops in shares of manufacturing employment. To rigorously test the sensitivity of El Salvador's local labor-market outcomes to Chinese competition, we adopt the following econometric model:

$$y_{s,t} = \alpha \times RCS_{s,t} + \beta \times RIMP_{s,t} + W'_{s,t-1} \times \mu + \delta_t + \delta_s + \varepsilon_{st}, (3)$$

where $y_{s,t}$ are the labor-market outcomes of interest for market s in year t, and $W'_{s,t-1}$ are additional labor-market-level control variables in year $t-1$. δ_t and δ_s are year fixed effects and labor-market fixed effects, respectively. Because the household survey is conducted annually, we have a balanced panel dataset of 61 labor markets over 15 years, which gives us 915 observations. To allow for spatial correlation across labor markets within the same state, we cluster standard errors at the level of state in all regressions.

The above econometric model deviates from the classical methodology of Autor et al. (2013) in two ways. First, we estimate the model using fixed effects rather than first differences between the end and the beginning of the sample period, which should be equivalent, as explained in Autor et al. (2013). Second, to take advantage of the annually available household survey, we estimate the model using a 15-year panel dataset rather than one for just the first, middle, and final years, as in Autor et al. (2013). This expanded time period enables us to remove the effect of time-invariant characteristics so that we can estimate the real effect of Chinese import competition on labor markets in El Salvador.

Autor et al. (2013) include a rich set of controls for a commuting zone's start-of-decade labor force and demographic composition that might independently affect manufacturing employment. For example, the level of manufacturing employment might depend on the available labor force in a labor market or the education level of its population. These factors might evolve differently across markets for reasons that are not related to the China shock. It is therefore important to control for these in the econometric specification. In the above model, the labor-market fixed effects already remove this time-invariant start-of-period factors. However, as these control variables change from year to year, including them in the model may improve the accuracy of the estimation. We therefore include a set of control variables using their previous year's values, which include the size of the local labor force, the share of workers in nontradable sectors, the proportion of rural residents, the share of population with HSDs, and the share of the working-age population without social security coverage.

Our goal is to identify the causal effect of Chinese import competition on local labor market dynamics in El Salvador. However, there may be additional shocks that are both relevant for the dependent labor market variables and correlate with the Chinese competition measure. The observed changes in this measure might not be entirely driven by China. For example, changes in El Salvador's imports from China might be capturing changes in patterns of consumption associated with rising incomes rather than the supply-driven changes originating from China. To address potential endogeneity problems, we construct instrumental variables for Chinese import competition ($RCS_{s,t}$) by using other countries' imports from China. This is a standard approach in the China shock literature—see, for example, Autor et al. (2013) and Iacovone et al. (2012). The instrumental variable is constructed as follows:

$$IVRCS_{s,t} = \sum_j \frac{L_{s,j,2000}}{L_{j,2000}} \frac{IMPOC_{j,t}}{L_{s,2000}}, (4)$$

where, $IMPOC_{j,t}$ is other countries' imports from China. We construct two country groups that could be applied: Latin American countries except El Salvador and a group of comparable countries established by the World Bank.[4] This methodology aims to identify countries that have similar levels of economic development and/or size, competitors with a similar export basket, or "neighboring" countries within the region. The group of countries that are comparable to El Salvador includes Albania, Costa Rica, Dominican Republic, Honduras, Jordan, Mauritius, Namibia, and Tunisia.

4. RESULTS

In this section, we analyze the impact of Chinese import competition on three sets of labor-market outcomes: employment, informality, and monthly wage.

[4] More information is available at https://mec.worldbank.org/comparator.

A. Employment

As shown in columns 1 and 3 of table 2, the top quantile of labor markets in terms of per-worker imports from China seems to experience a greater drop in the share of working-age population employed in manufacturing. A comparison of figures 2 and 3 once again reveals this pattern: the labor markets experiencing the largest increases in Chinese import competition tend to have the largest drop in shares of manufacturing employment. We now provide more supportive econometric evidence for this seemingly obvious hypothesis.

Table 3 displays the regression results for equation (3). The dependent variable is the share of manufacturing employment in the working-age population. We first estimate the model using OLS and the results are reported in column 1, in which we did not include any other controls besides labor-market fixed effects and year fixed effects. The coefficient for Chinese import competition is negative and significant at the 1% level. It indicates that a US$100 exogenous rise in a labor market's Chinese imports per worker is predicted to reduce the share of manufacturing employment in the working-age population in that market by 0.824 percentage points. For example, the US$290 increase in average per-worker imports from China between 2000 and 2014 led to 2.39-percentage-point decrease in the share of manufacturing employment among the working-age population. Column 2 presents the results of the 2SLS estimation using per-worker Chinese imports for the group of comparable countries as the instrument variable. The F statistic of 88.98 indicates that the specification does not seem to suffer from a weak instrument problem. The coefficient for Chinese import competition is now 1.123—in other words, greater than in column 1—which indicates that the same US$290 increase in average per-worker imports from China leads to 3.26-percentage-point decrease in the share of manufacturing employment.

In column 3, we introduce some additional variables to control for various labor-force and demographic factors. None of the control variables (except the share of informal workers) are statistically significant. This result is not completely unexpected, because the working-age population was included in the variable on the left-hand side and the labor-market fixed effects have already captured most of the variations in these control factors. The coefficient for the share of informal workers is negative and significant at the 5% level. However, the effect of Chinese competition is not affected: it is still negative and significant. A US$100 increase in a labor market's per-worker Chinese imports leads to 1.17-percentage-point reduction in the share of manufacturing employment among the working-age population in that market. Between 2000 and 2014, the US$290 increase in average per-worker imports from China leads to 3.39-percentage-point decrease in the share of manufacturing employment.

In column 4, we include import competition from the rest of the world. One hypothesis is that increased Chinese competition might just reflect increase in the country's overall exposure to imports, not just to those from China. If this is the case, the measure for Chinese import competition might be also capturing pressure from other countries, possibly overstating its effect. The result in column 4 suggests that this is not the case. Indeed, the bias goes in the opposite direction. Import competition from the rest of the world increases the share of manufacturing employment among the working-age population, even though it is only significant at the 10% level. Failing to control for import competition from the rest of the world underestimates the impact of Chinese competition. Comparing the coefficient in column 4 with the one in column 3 shows the impact of Chinese import competition to be much greater—a 4.96-percentage-point decrease in the share of manufacturing employment between 2000 and 2014.

Finally, as a robustness check, in column 5 we use an alternative set of countries as instruments: rather than the comparable country group defined by the World Bank, we use Latin American countries other than El Salvador. The alternative instrument variable does not affect the statistical significance or the size of the coefficient for Chinese competition.

We can conclude from table 3 that Chinese import competition reduced El Salvador's share of manufacturing employment among the working-age population by 4.96 percentage points between 2000 and 2014 (using the coefficient in column 4). We next proceed to test if this negative effect is different in the agriculture and nontradable

sectors. The results are reported in table 4. As a benchmark for comparisons, we include the result of the share of manufacturing employment in the first column (the same as column 4 in table 3).

In column 2, we study the share of active workers among the working-age population. An active worker is defined as a working-age person who is employed or is actively looking for employment. The estimation indicates that a US$100 increase in Chinese import competition reduces the share of active workers by 1.435 percentage points. Fierce import competition reduces the incentives for workers to remain in the labor force. As shown in column 3, total employment as a share of the working-age population is also negatively affected by Chinese import competition. Reductions in both the share of active workers and the share of the total employed population are slightly smaller than in the manufacturing employment, which implies that not all workers that lost their jobs in manufacturing are pushed into unemployment. Some of them must thus have found employment in another sector. The results shown in column 4 validate this hypothesis: the share of the working-age population employed in the agriculture sector rises by 1.285 percentage points with the increase in Chinese import competition. In column 5, we find that employment in the nontradable sector is also negatively affected by Chinese competition, a reduction of 1.085 percentage points for every US$100 increase in Chinese imports per worker. One plausible reason is that some nontradable sectors are complementary to manufacturing and exist to provide services to manufacturing. Once the manufacturing jobs are shredded, the nontradable support sectors cannot survive either.

We can gain further insights by studying the effect on the (log of) the number of people in employment rather than their share. Table 5 presents these results. If per-worker imports from China increase by US$100, the number of workers employed in manufacturing decreases by 13.3% (column 1) while in agriculture it increases by 25.1% (column 5). The US$290 increase in average per-worker imports from China between 2000 and 2014 indicates that the number of people employed decreased by 38.57% in manufacturing and increased by 72.79% in agriculture. These estimations do seem to be too large.

The results in columns 2, 3, 4, and 6 reveal that the levels of the working-age population, active workers, total employed workers, and workers employed in the nontradable sector are all negatively affected by Chinese competition, even though these impacts are not statistically significant. The negative impact on the level of active workers is greater than the impact on the working-age population, and thus the negative effect on the share of active workers in the working-age population is still statistically significant, as shown in table 4, column 2. The same logic applies to the share of total employed workers and workers employed in the nontradable sector.

The literature on import competition finds that unskilled workers are forced into unemployment or leave the labor force altogether, whereas skilled workers—including college-educated, professional and technical workers—are modestly affected or are not significantly affected (see Bloom et al. 2006, Utar 2014, and Balsvik et al. 2015). In table 6, we examine how workers with different education levels in El Salvador are affected by Chinese import competition. To adapt to El Salvador's circumstances, we differentiate between workers with and without HSDs. Column 1 presents the results of the impact of Chinese competition on the share of the total employed population without HSDs. To save space, we only report the coefficient for Chinese import competition. The share of the total employed population without HSDs is negatively affected by Chinese import competition, but the impact is not statistically significant. The estimation in column 2 indicates that the share of workers that are employed in manufacturing and do not have HSDs decreases by 2.485 percentage points if per-worker imports from China increase by US$100. Column 3, in turn, shows that the same shock has a positive impact on agriculture, increasing the share of workers who do not have HSDs by 2.852 percentage points. The results for the nontradable sector (column 4) point to a negative impact, but this is not statistically significant. By combining the results from columns 1 to 4, we can conclude that Chinese import competition has pushed most unskilled workers leaving manufacturing into agriculture while a small portion is forced into unemployment. Because of this composition effect, the share of manufacturing workers with HSDs increases by 2.392 percentage points, as is shown in column 5. Although many workers without HSDs flow into the agriculture sector, the share of agriculture-sector workers that do not have HSDs is not affected in a statistically significant fashion (column

6) because this share is already relatively high to begin with. Nor is the effect on the nontradable sector statistically significant, as column (7) shows.

In contrast, workers with HSDs are not negatively affected by rising Chinese import competition. The results in columns 8 to 10 show that the effect on the share of the total employed population with HSDs in different sectors is not statistically significant.

B. Informality

As labor informality is a pervasive characteristic of El Salvador's economy, we now proceed to examine how it is affected by import competition from China. As explained in section 2, informal workers are defined as those without social security coverage according to the household survey.

Table 7 presents the regression results. In column 1, we study the share of informality among the total employed population using equation (3). Of all the control variables included, only one is significant at the conventional level. The lower the share of the population with HSDs, the higher the share of informal workers. Chinese import competition is associated with a reduction in the overall share of informal workers, but the effect is not statistically significant. In manufacturing (column 2), however, this effect is statistically significant (at 5%), amounting to a 1.88-percentage-point reduction if per-worker imports from China increase by $100. By contrast, Chinese import competition is estimated to have had a positive impact on informality in agriculture—the share of informality in the total employed population increased by 2.548 percentage points (column 3). The impact on the nontradable sector is negative but is not statistically significant (column 4).

In table 8, we study how the number of informal workers is affected by Chinese competition. Based on the coefficients in table 8, the impact is negative for the economy as a whole and for the manufacturing and nontradable sectors, but it has a positive impact on agriculture. A $20 increase in Chinese imports reduces the number of informal workers by 1% in all sectors (column 1), 3.26% in manufacturing (column 2), and by 1.32% in nontradable sectors (only statistically significant at the 10% level, column 4).[5] In agriculture, the same shock would increase the number of informal workers by 5.06% (column 3).[6]

In table 9, we examine how Chinese import competition affects informality among different education levels. To save space, only coefficients for per-worker imports from China are reported. We include the results for all education levels (i.e., the results from table 7) in the first 4 columns for comparison purposes. In columns 5 to 8, we focus on informal workers with HSDs. The dependent variables are as follows: in column 5, the share of a labor market's total workers who are informally employed and have HSDs; in column 6, the share of a labor market's total workers who are informally employed in the manufacturing sector and have HSDs; in column 7, the share of a labor market's total workers who are informally employed in the agriculture sector and have HSDs; in column 8, the share of a labor market's total workers who are informally employed in the nontradable sector and have HSDs. The estimated coefficients indicate that none of the impacts are statistically significant. In columns 9 to 12, we redo the above exercise for informal workers without HSDs. Based on these estimations, if per-worker imports from China increase by US$100, the share of the total employed population that is informally employed in the manufacturing sector and do not have HSDs decreases by 1.918 percentage points. In the agriculture sector, this share increases by 2.720 percentage points in response to the same shock. These results are consistent with our previous findings, which suggests that nonskilled workers are pushed from manufacturing into agriculture, where they are more likely to find informal jobs.

[5] As mentioned above, the average annual increase in per-worker imports from China is US$19. We use a US$20 shock here to reach a more realistic number.

[6] The estimated coefficient is -0.050 for all sectors, which indicates a 5% decrease for every US$100 increase in per-worker imports from China, and thus a 1% decrease for every US$20 increase in per-worker imports from China.

C. Wage

Finally, we examine how the average monthly wage is affected by import competition from China. Column 1 in table 10 presents the estimation results of (the log of) the average monthly wage across all workers. Chinese import competition is estimated to have had a negative impact on the average monthly wage, but the result is not statistically significant. At the sector level, the coefficient's sign varies (it is positive for manufacturing, but negative for agriculture and the nontradable sector), but none of the results are statistically significant. Columns 5 to 8 report a negative effect on the average monthly wage of informal workers, but, again, none of the results are statistically significant.

D. Robustness check

As explained in section 3, we did not follow the methodology in Autor et al. (2013) because our dataset has a relatively smaller cross-sectional dimension but a longer time horizon than theirs. It only contains 61 local labor markets, but extends over 15 years, as compared with 722 commuting zones (CZs) over 3 years in Autor et al. (2013). As a robustness check, we test the impact of Chinese import competition on the share of manufacturing employment using the cross-sectional data for the changes between year 2000 and year 2014. The results are reported in table 11.

In columns 1 to 3, we examine the change in the share of the working-age population employed in manufacturing. In column 1, we only include the change in per-worker imports from China and the change in per-worker imports from the rest of the world. No fixed effects are included. In column 2, we introduce state fixed effects. In column 3, we include extra control variables in addition to state fixed effects. When these results are compared to the coefficient in column 4 of table 3 (1.711), they are very close to our original estimation. We also replicate this exercise for the change in the share of total employment that is informally employed in the manufacturing sector in columns 4 to 6 and reach the same conclusion. However, the sample size is only 61, which is much smaller than the conventional sample size for a meaningful regression.

5. CONCLUSION

In this paper, we relate El Salvador's local labor-market outcomes to their exposure to Chinese import competition. Using annual household surveys for 2000 to 2014, we construct a panel dataset of 61 local labor markets over 15 years to study three sets of outcomes: manufacturing employment, labor informality, and average wage. We find that rising Chinese import competition has negatively affected employment in the manufacturing and nontradable sectors. Some workers were pushed into agriculture, while others were forced out of the active labor force. Further analysis shows that it is the unskilled workers that were pushed out of manufacturing, while more skilled and professional workers were not affected by Chinese competition. With regard to labor informality, we also find that as workers, especially low-skilled workers, have been pushed from manufacturing into agriculture due to Chinese import competition, informality has decreased in the former sector and increased in the latter. Again, this change in labor informality mainly affects unskilled workers. Informal employment among workers with HSDs is not affected by Chinese competition. We do not find that Chinese import competition has a significant impact on the average wage of formal or informal workers, or on those of unskilled workers, at the conventional significance level.

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TABLE 1: EL SALVADOR'S MANUFACTURING SECTORS: DEFINITIONS

	Sector	ISIC3	ISIC4
Agricultural	Agriculture and hunting	01	01
	Forestry	02	02
	Fishing products	05	03
Mining	Mining and quarrying exploitation	10 11 12 13 14	05 06
Manufacturing	Meat and fishing products	151	101 102
	Milk products	152	105
	Bakery and milling products	153	106
	Sugar and other processed food products	154	103 104 107 108
	Beverages	155	11
	Tobacco	16	12
	Textiles and textiles products (except clothing)	17	13
	Apparel	18	14
	Leather and related products	19	15
	Wood and related products	20	16
	Paper and cardboard related products	21	17
	Printing products	22	18
	Chemicals products	24	20 21
	Refined oil products	23	19
	Rubber and plastic products	25	22
	Nonmetallic manufactured mineral products	26	23
	Metallic mineral products	27 28	24 25
	Machinery, equipment, and supplies	29 30 31 32 33 36 37	26 27 28 31 32 33
	Transport supplies and diverse manufacturing products	34 35	29 30
Nontradable	Electricity, gas, and water	40 41	35 36 37 38 39
	Construction	45	41 42 43
	Trade, restaurants, and hotels	50 51 52 55	45 46 47
	Transportation, storage, and communications	60 61 62 63 64	49 50 51 52 53
	Financial institutions and insurance	65 66 67	64 65 66
	Real estate, business services, and residential leasing	70 71 72 73 74	68 69 70 71 72 73 74 75 77
	Community, social personal, domestic, and government services	75 80 90 91 92 93 95 99	78 79 80 81 82 84 85 86 87 88 90 91 92 93 94 95 96 97 98 99

TABLE 2: SUMMARY STATISTICS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Imports from China (per worker, in US$100)	Imports from ROW (per worker, in US$100)	Working-age population employed in manufacturing (percentage)	Employed workers without social security (percentage)	Average monthly wage (US$)	Working-age population	Share of workers in nontradable sectors (percentage)	Share of rural residents (percentage)	Working-age population with high-school diploma (percentage)
All labor markets									
2000	0.1 (0.1)	12.2 (6.4)	10.7 (4.8)	73.4 (15.0)	187 (86)	59,359 (45,101)	59.2 (13.5)	42.7 (32.3)	19.3 (13.6)
2014	3.0 (1.9)	33.6 (18.6)	9.1 (3.8)	71.0 (13.8)	264 (97)	67,287 (49,081)	64.9 (11.6)	39.7 (25.6)	28.5 (13.3)
change	2.9 (1.9)	21.4 (14.3)	-1.5 (3.1)	-2.4 (5.7)	77 (37)	7,927 (33,329)	5.7 (6.7)	-3.0 (20.6)	9.2 (5.4)
Top quantile of imports from China per worker									
2000	0.2 (0.1)	18.3 (6.2)	15.4 (4.2)	64.3 (17.7)	218 (86)	72,509 (42,203)	64.1 (13.6)	20.3 (32.8)	25.3 (15.0)
2014	5.7 (1.0)	59.6 (11.1)	11.7 (3.5)	61.2 (15.4)	294 (86)	79,164 (41,901)	70.7 (11.3)	22.2 (27.3)	36.1 (13.8)
change	5.6 (1.0)	41.3 (9.6)	-3.8 (3.9)	-3.1 (6.2)	76 (32)	6,656 (22,416)	6.6 (5.3)	1.9 (21.8)	10.8 (5.3)

TABLE 3: SHARE OF MANUFACTURING EMPLOYMENT IN WORKING-AGE POPULATION, 2000–2014

VARIABLES	(1) OLS	(2) 2SLS IV_CMPT	(3) 2SLS IV_CMPT	(4) 2SLS IV_CMPT	(5) 2SLS IV_LAC
rcs_tv	-0.824***	-1.123***	-1.170***	-1.711***	-1.733***
	(0.127)	(0.163)	(0.205)	(0.369)	(0.382)
rimp_tv				0.088*	0.090*
				(0.043)	(0.043)
l_lnpp_workage_1			-0.167	-0.176	-0.174
			(0.191)	(0.168)	(0.169)
l_share_empld_nT_1			0.007	-0.002	-0.002
			(0.023)	(0.022)	(0.022)
l_share_rural_1			-0.005	-0.008	-0.008
			(0.008)	(0.006)	(0.006)
l_share_workage_hs_1			-0.050	-0.055**	-0.055**
			(0.029)	(0.025)	(0.025)
l_share_workage_allnSS_1			-0.087**	-0.098***	-0.099***
			(0.033)	(0.031)	(0.031)
Observations	915	915	915	915	915
R-squared	0.856	0.854	0.856	0.855	0.855
Labor-market FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State
Weak Identification F Test		88.98	103	53.23	41.80

Note: The dependent variable is the share of the working-age population employed in the manufacturing sector in percentage points. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 4: SELECTED EMPLOYMENT SHARE IN WORKING-AGE POPULATION, 2000-2014

	(1) MNF	(2) Active worker	(3) Total employed	(4) AGR	(5) NnT
	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-1.711***	-1.435***	-1.511***	1.285***	-1.085**
	(0.369)	(0.308)	(0.337)	(0.283)	(0.486)
rimp_tv	0.088*	0.082**	0.087**	-0.114***	0.114**
	(0.043)	(0.034)	(0.036)	(0.034)	(0.045)
l_lnpp_workage_1	-0.176	-0.091	-0.206	0.240	-0.269
	(0.168)	(0.436)	(0.437)	(0.349)	(0.587)
l_share_empld_nT_1	-0.002	-0.025	-0.034	-0.170***	0.139***
	(0.022)	(0.020)	(0.022)	(0.034)	(0.031)
l_share_rural_1	-0.008	-0.002	-0.007	0.037***	-0.036***
	(0.006)	(0.007)	(0.007)	(0.006)	(0.009)
l_share_workage_hs_1	-0.055**	0.035	0.032	-0.025	0.113***
	(0.025)	(0.022)	(0.023)	(0.023)	(0.022)
l_share_workage_allnSS_1	-0.098***	0.063**	0.080**	0.108**	0.071**
	(0.031)	(0.025)	(0.032)	(0.036)	(0.029)
Observations	915	915	915	915	915
R-squared	0.855	0.803	0.755	0.916	0.918
Labor-market FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State
Weak Identification F Test	53.23	53.23	53.23	53.23	53.23

Note: The dependent variable in column (1) is the share of the working-age population employed in the manufacturing sector, column (2) the share of the working-age population that are active workers, column (3) the share of the working-age population that are employed, column (4) the share of the working-age population employed in the agriculture sector, and column (5) the share of the working-age population employed in the nontradable sector. All the dependent variables are in percentage points. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 5: EMPLOYMENT COUNT, 2000-2014

	(1)	(2)	(3)	(4)	(5)	(6)
	MNF	Working-age	Active worker	Total employed	AGR	NnT
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.133***	-0.012	-0.035	-0.038	0.251***	-0.050
	(0.033)	(0.022)	(0.025)	(0.025)	(0.079)	(0.030)
rimp_tv	0.006	0.001	0.002	0.003	-0.017**	0.005
	(0.005)	(0.003)	(0.003)	(0.003)	(0.007)	(0.004)
l_lnpp_workage_1	0.626***	0.646***	0.644***	0.642***	0.677***	0.645***
	(0.044)	(0.035)	(0.035)	(0.035)	(0.057)	(0.041)
l_share_empld_nT_1	-0.003	-0.005	-0.005	-0.006	-0.020**	-0.000
	(0.002)	(0.003)	(0.004)	(0.003)	(0.007)	(0.003)
l_share_rural_1	-0.001	-0.001	-0.001	-0.001	0.005**	-0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
l_share_workage_hs_1	0.002	0.007*	0.008*	0.008*	0.003	0.009**
	(0.005)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)
l_share_workage_allnSS_1	-0.007	-0.000	0.001	0.001	0.013**	0.001
	(0.004)	(0.003)	(0.003)	(0.003)	(0.006)	(0.004)
Observations	915	915	915	915	907	915
R-squared	0.915	0.915	0.915	0.914	0.883	0.920
Labor-market FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State	State
Weak Identification F Test	53.23	53.23	53.23	53.23	53.05	53.23

Note: The dependent variable in column (1) is the log of the number of workers employed in the manufacturing sector, column (2) the log of the number of working-age population, column (3) the log of the number of active workers, column (4) the log of the number of total employed workers, column (5) the log of the number of workers employed in the agriculture sector, and column (6) the log of the number of workers employed in the nontradable sector. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 6: EMPLOYMENT SHARE IN TOTAL EMPLOYMENT BY SECTOR AND EDUCATION LEVEL

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Total no HSD in total employed	MNF no HSD in total employed	AGR no HSD in total employed	NnT no HSD in total employed	MNF with HSD in MNF employed	AGR with HSD in AGR employed	NnT with HSD in NnT employed	MNF with HSD in total employed	AGR with HSD in total employed	NnT with HSD in total employed
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.680	-2.485***	2.852***	-1.047	2.392**	-0.995	0.850	0.183	-0.133	0.630
	(0.443)	(0.581)	(0.608)	(0.966)	(1.081)	(1.115)	(0.647)	(0.161)	(0.203)	(0.539)
Observations	915	915	915	915	915	907	915	915	915	915
R-squared	0.926	0.800	0.927	0.796	0.754	0.455	0.895	0.792	0.585	0.923
Labor-market FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State	State	State	State	State	State
Control variable	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weak Identification F Test	53.23	53.23	53.23	53.23	53.23	53.05	53.23	53.23	53.23	53.23

Note: The dependent variable in column (1) is the share of total employment without HSDs, column (2) the share of total employment that is employed in the manufacturing sector without HSDs, column (3) the share of total employment that is employed in the agriculture sector without HSDs, column (4) the share of total employment that is employed in the nontradable sector without HSDs, column (5) the share of manufacturing sector workers with HSDs, and column (6) the share of agriculture sector workers with HSDs, and column (7) the share of nontradable sector workers with HSDs, column (8) the share of total employment that is employed in the manufacturing sector with HSDs, column (9) the share of total employment that is employed in the agriculture sector with HSDs, column (10) the share of total employment that is employed in the nontradable sector with HSDs. rcs_tv is El Salvador's per-worker imports from China in US$100. MNF refers to the manufacturing sector, AGR the agriculture sector, NnT the nontradable sector and HSD.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 7: SHARE OF INFORMAL WORKERS IN TOTAL EMPLOYMENT BY SECTOR

	(1) All	(2) MNF	(3) AGR	(4) NnT
	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.835	-1.880**	2.548***	-1.088
	(0.520)	(0.737)	(0.477)	(0.656)
rimp_tv	0.056	0.117	-0.196***	0.102
	(0.041)	(0.068)	(0.063)	(0.071)
l_lnpp_workage_1	0.336	-0.394	0.525	0.275
	(0.556)	(0.373)	(0.642)	(0.459)
l_share_empld_nT_1	-0.045	0.019	-0.296***	0.246***
	(0.028)	(0.028)	(0.065)	(0.048)
l_share_rural_1	0.027*	-0.002	0.060***	-0.031*
	(0.013)	(0.011)	(0.008)	(0.016)
l_share_workage_hs_1	-0.232***	-0.039	-0.037	-0.075*
	(0.027)	(0.031)	(0.038)	(0.041)
l_share_workage_allnSS_1		-0.007	0.142**	0.125**
		(0.018)	(0.059)	(0.051)
Observations	915	915	915	915
R-squared	0.935	0.624	0.932	0.731
Labor-market FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
S.E. cluster	State	State	State	State
Weak Identification F Test	58.88	53.23	53.23	53.23

Note: The dependent variable in column (1) is the share of total employment that are informal workers, column (2) the share total employment that are informally employed in the manufacturing sector, column (3) the share of total employment that are informally employed in the agriculture sector, column (4) the share of total employment that are informally employed in the nontradable sector. All the dependent variables are in percentage points. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 8: INFORMAL WORKER COUNT BY SECTOR

	(1) All	(2) MNF	(3) AGR	(4) NnT
	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.050**	-0.163***	0.253**	-0.066*
	(0.022)	(0.049)	(0.088)	(0.034)
rimp_tv	0.003	0.009	-0.016*	0.005
	(0.003)	(0.006)	(0.008)	(0.005)
l_lnpp_workage_1	0.646***	0.608***	0.676***	0.653***
	(0.036)	(0.052)	(0.060)	(0.041)
l_share_empld_nT_1	-0.006	-0.003	-0.019**	0.001
	(0.003)	(0.003)	(0.007)	(0.003)
l_share_rural_1	-0.000	-0.001	0.005*	-0.001
	(0.001)	(0.001)	(0.003)	(0.001)
l_share_workage_hs_1	0.003	0.001	-0.001	0.005
	(0.004)	(0.005)	(0.007)	(0.004)
l_share_workage_allnSS_1		0.002	0.015**	0.004
		(0.005)	(0.007)	(0.004)
Observations	915	915	894	915
R-squared	0.895	0.859	0.880	0.898
Labor-market FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
S.E. cluster	State	State	State	State
Weak Identification F Test	58.88	53.23	53.11	53.23

Note: The dependent variable in column (1) is the log of the number of total informal workers, column (2) the log of the number of informal workers in the manufacturing sector, column (3) the log of the number of informal workers in the agriculture sector, column (4) the log of the number of informal workers in the nontradable sector. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 9: SHARE OF INFORMAL WORKERS IN TOTAL EMPLOYMENT BY SECTOR AND EDUCATION LEVEL

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	All				With HSD				Without HSD			
	All	MNF	AGR	NnT	All	MNF	AGR	NnT	All	MNF	AGR	NnT
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.420	-1.880**	2.548***	-1.088	-0.166	0.037	-0.172	-0.031	-0.254	-1.918**	2.720***	-1.056
	(0.494)	(0.737)	(0.477)	(0.656)	(0.223)	(0.088)	(0.182)	(0.200)	(0.470)	(0.753)	(0.595)	(0.750)
Observations	915	915	915	915	915	915	915	915	915	915	915	915
R-squared	0.937	0.624	0.932	0.731	0.781	0.381	0.622	0.797	0.941	0.650	0.928	0.768
Labor-market FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State	State	State	State	State	State	State	State
Control variable	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weak Identification F Test	53.23	53.23	53.23	53.23	53.23	53.23	53.23	53.23	53.23	53.23	53.23	53.23

Note: The dependent variable in column (1) is the share of a labor market's total employed population that are informal workers; column (2) the share of a labor market's total employed population that are informally employed in the manufacturing sector; column (3) the share of a labor market's total employed population that are informally employed in the agriculture sector; column (4) the share of a labor market's total employed population that are informally employed in the nontradable sector; column (5) is the share of a labor market's total employed population that are informal workers with HSDs, column (6) the share of a labor market's total employed population that are informally employed in the manufacturing sector with HSDs; column (7) the share of a labor market's total employed population that are informally employed in the agriculture sector with HSDs; column (8) the share of a labor market's total employed population that are informally employed in the nontradable sector with HSDs; column (9) is the share of a labor market's total employed population that are informally employed without HSDs, column (10) the share of a labor market's total employed population that are informally employed in the manufacturing sector without HSDs; column (11) the share of a labor market's total employed population that are informally employed in the agriculture sector without HSDs; column (12) the share of a labor market's total employed population that are informally employed in the nontradable sector without HSDs. All the dependent variables are in percentage points. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 10: AVERAGE MONTHLY WAGE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All worker				Informal worker			
	All	MNF	AGR	NnT	All	MNF	AGR	NnT
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
rcs_tv	-0.012	0.007	-0.040	-0.000	-0.039	-0.031	-0.008	-0.016
	(0.014)	(0.040)	(0.064)	(0.015)	(0.028)	(0.065)	(0.051)	(0.012)
rimp_tv	0.001	0.001	-0.006	0.001	0.002	0.004	-0.006	0.001
	(0.001)	(0.004)	(0.006)	(0.001)	(0.002)	(0.005)	(0.004)	(0.001)
l_lnpp_workage_1	0.010	0.026	0.104	-0.007	0.011	0.027	0.102	-0.011
	(0.022)	(0.031)	(0.064)	(0.024)	(0.022)	(0.037)	(0.061)	(0.022)
l_share_empld_nT_1	0.002	0.001	0.003	-0.003	0.002	0.001	0.006*	-0.003
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
l_share_rural_1	-0.001***	-0.000	0.001	-0.001	-0.001**	0.000	0.000	-0.000
	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)
l_share_workage_hs_1	0.007***	0.004*	0.005	0.009***	0.005*	0.003	-0.008	0.007***
	(0.001)	(0.002)	(0.003)	(0.001)	(0.003)	(0.003)	(0.005)	(0.002)
l_share_workage_allnSS_1	-0.004***	-0.005*	-0.008*	-0.001	-0.003	-0.003	-0.008	-0.000
	(0.001)	(0.002)	(0.004)	(0.001)	(0.002)	(0.003)	(0.005)	(0.002)
Observations	915	915	900	915	915	915	882	915
R-squared	0.892	0.743	0.651	0.794	0.838	0.488	0.596	0.624
Labor-market FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
S.E. cluster	State	State	State	State	State	State	State	State
Weak Identification F Test	53.23	53.23	52.63	53.23	53.23	53.23	53.75	53.23

Note: The dependent variable in column (1) is the log of the average monthly wage of all workers; column (2) is the log of the average monthly wage of workers in the manufacturing sector; column (3) is the log of the average monthly wage of workers in the agriculture sector; column (4) is the log of the average monthly wage of workers in the nontradable sector; column (5) is the log of the average monthly wage of all informal workers; column (6) is the log of the average monthly wage of informal workers in the manufacturing sector; column (7) is the log of the average monthly wage of informal workers in the agriculture sector; column (8) is the log of the average monthly wage of informal workers in the nontradable sector. rcs_tv is El Salvador's per-worker imports from China in US$100. rimp_tv is its per-worker imports from other countries (excluding China) in US$100. l_x_1 is the first lag of variable x. MNF refers to the manufacturing sector, AGR the agriculture sector, and NnT the nontradable sector.

*** p<0.01, ** p<0.05, * p<0.1

TABLE 11: CROSS-SECTIONAL REGRESSION OF CHANGES

	(1)	(2)	(3)	(4)	(5)	(6)
	Change in share of the working-age population employed in manufacturing			Change in share of total employed population informally employed in manufacturing		
	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
VARIABLES	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT	IV_CMPT
d_rcs_tv_1	-1.818***	-1.583***	-1.623***	-3.083***	-2.946***	-2.233***
	(0.395)	(0.420)	(0.361)	(0.399)	(0.448)	(0.396)
d_rimp_tv_1	0.104*	0.073	0.098**	0.313***	0.278***	0.240***
	(0.051)	(0.054)	(0.042)	(0.065)	(0.075)	(0.047)
l_lnpp_workage_1			-1.135*			-0.664
			(0.563)			(0.507)
l_share_empld_nT_1			-0.001			0.100
			(0.032)			(0.070)
l_share_rural_1			0.029			0.076*
			(0.019)			(0.040)
l_share_workage_hs_1			0.033			-0.051
			(0.045)			(0.044)
l_share_workage_allnSS_1			0.018			-0.235***
			(0.069)			(0.070)
Observations	61	61	61	61	61	61
R-squared	0.457	0.582	0.613	0.382	0.524	0.598
State FE	NO	YES	YES	NO	YES	YES
Year FE	NO	NO	NO	NO	NO	NO
S.E. cluster	State	State	State	State	State	State
Weak Identification F Test	149	229.2	141.7	149	229.2	141.7

Note: The dependent variable in column (1), (2) and (3) is the change in the share of the working-age population employed in manufacturing between 2000 and 2014, in percentage points. The dependent variable in columns (4), (5), and (6) is the change in the share of the total employed population that are informally employed in manufacturing between 2000 and 2014, in percentage points. d_rcs_tv_1 is the change of per-worker imports from China between 2000 and 2014, in US$100. d_rimp_tv_1 is the change in per-worker imports from other countries (excluding China) between 2000 and 2014, in US$100. l_x_1 is the value of x in year 2000.

*** p<0.01, ** p<0.05, * p<0.1