DO ALL FOREIGN DIRECT INVESTMENT INFLOWS BENEFIT THE LOCAL ECONOMY?

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Abstract

The present study measures the impact of FDI inflows on the local economies of a sample of US states. It appears that FDI in manufacturing has rather weak effects on local employment and wages in most of the states in the sample. However, these results are primarily due to the industry composition of the FDI. FDI inflows in Printing and Publishing, Transportation Equipment and Instruments have positive effects on local employment and wages in several US states, while FDI inflows in Leather and Stone/Clay/Glass have detrimental effects on local labor markets in most of the states in the sample. These findings indicate the importance of industry characteristics in evaluating the effects of FDI inflows on local communities. Also, they emphasize the need for US states to selectively target and attract FDI inflows in specific industries.

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1. Introduction

In 1993, it was reported that the state of Alabama had offered more than $300 million in various financial incentives to lure Daimler Benz in choosing Alabama as the site of its US subsidiary.[1] However, many criticized Alabama for offering too much to Daimler Benz in comparison to the expected benefits the German subsidiary would bring to the local economy.[2] The key question then is the magnitude of the benefits a local economy receives from foreign direct investment inflows (FDI). The present study aims in shedding light on this issue.

In particular, the paper analyzes the effects of FDI inflows on local employment and wages (labor market effects) in manufacturing across a sample of US states. It appears that FDI inflows have rather weak labor market effects across states. However, these effects are primarily due to the industry composition of the FDI. For a given subgroup of industries, FDI inflows have positive labor market effects while for another subgroup of industries negative effects. Also, the labor market effects of FDI in the latter group of industries appear in a relatively larger number of US states than the FDI labor market effects of the former subgroup of industries. Finally, it is shown that FDI inflows in a specific subgroup of industries have beneficial labor market effects in most of the states in the sample.

In the last two decades, various US states offered strong economic incentives in an effort to attract FDI inflows, with the hope that FDI would stimulate their local economies. Researchers, in evaluating the effects of FDI on the local economies, focus primarily on the performance of foreign-owned subsidiaries operating in the US. Hownstein and Zeile [1994] find that foreign affiliates in the US are on average larger, more capital intensive and pay higher wages than domestic plants, and Globerman, Ries and Vertinsky [1994] agree based on data from foreign establishments operating in Canada. Doms and Jensen [1996] support these findings after controlling for industry and location characteristics, along with plant's age and size.

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[1] "Ante Up: States' Bidding War Over Mercedes Plant Made for Costly Chase --- Alabama Won the Business, But Some Wonder if It Also Gave Away the Farm --- Will Image Now Improve?" The *Wall Street Journal*, 11/24/1993.

[2] "Alabama's Winning of Mercedes Plant Will Be Costly, With Major Tax Breaks", The *Wall Street Journal*, 09/30/1993.

Extending this literature, other researchers focus on wages' spillovers across foreign and domestic plants. Aitken, Harrison and Lipsey [1996] find than in the US a higher level of foreign ownership in an industry and location is associated with higher wages in domestically owned plants. Also, Feenstra and Hanson [1997] reveal that FDI in Mexico accounts for more than half of the increase in skilled labor wage share that occurred in the country in the late 80s.

However, very little has been done in evaluating the overall effects of FDI inflows on the local economies of the host US states. Figlio and Blonigen [1999], using county level data from South Carolina, find that manufacturing employment by foreign plants has a strong positive impact on county and industry specific wages. Also, the addition of an average-sized foreign subsidiary increases real wages for all workers in the specific county and industry by much more than a similar domestic company.

The present study sheds light on the different labor market effects of FDI inflows across US states and industries. The analysis identifies groups of industries that have diverse labor market effects in the states receiving them. Also, a recommendation is offered in terms of a group of industries in manufacturing where FDI inflows have positive effects on both local employment and wages.

Section 2 of the paper discusses the theoretical intuition of the study. Section 3 describes the data in use. In section 4 the empirical results are presented. Section 5 offers a policy recommendation, and section 6 concludes.

2. Motivation

FDI inflows are expected to influence employment and wages in a local market primarily through shifts in labor demand (at least in the short-run). Researchers have already shown that the establishment of a new foreign subsidiary or the expansion of an already existing one usually leads to higher employment and wages at a plant level (Doms and Jensen, 1996). However, it has not been studied yet if these effects on plant-specific employment and wages also spill over to the rest of the local market, boosting also local employment and wages. The present study focuses on this issue.

At the same time, there are several other factors that might shift labor demand in a local labor market. Gains in labor productivity boost the marginal product of labor and

exercise an upward demand pressure on local employment. Also, a local product market demand expansion increases the value of the marginal product of labor making companies more willing in hiring workers. Finally, several researchers have shown that exchange rate fluctuations have also an impact on local labor markets.[3] Industries that are rather open to international trade can benefit or lose from exchange rate fluctuations. For instance, an appreciation of the domestic currency is expected to decrease sales of export oriented industries and also of industries that are heavily penetrated by imports.

On the other hand, FDI inflows bring along new technologies that might be biased in favor or against the use of labor. To the extend of which these technologies spillover to domestic companies, FDI might have an expansive or a contracting effect on labor demand. The remaining part of the study focuses on the labor market effects of FDI inflows in manufacturing in a sample of US states.

3. Data

The empirical analysis depends on a data set that records US FDI flows in US states maintained in the publication "Foreign Direct Investment in the United States".[4] The data reports FDI transactions in the US of foreign companies that posses at least ten percent of the ownership of their US subsidiary where the investment is placed. Finally, the FDI data span twenty-one years (from 1974 to 1994).

The sample includes all FDI inflows $\left(FDI_{ijt}\right)$ in all twenty 2-digit SIC manufacturing industries (index *i*) in ten US states (index *j*) that received the most FDI inflows between 1974 and 1994 (index *t* for time) based on the ITA data set.[5] Tables 1 and 2 present a break down of FDI inflows across states and industries. The sate of New York received 24% of the total FDI in the sample and along with California and Ohio (13% of the total each) account for approximately half of the total FDI that flew in the ten states of the sample. On the other hand, Chemicals and Electrical Machinery top the list

[3] See Campa and Goldberg [1998], Goldberg and Tracy [1998], Goldberg, Tracy and Aaronson [1999], Gourinchas [1998], and Revenga [1992] among others.
[4] These data were maintained by the International Trade Administration (ITA), the US Department of Commerce, and were discontinued after 1994.
[5] The states in the sample received approximately 63% of all FDI inflows in US manufacturing that recorded by the ITA in the period between 1974 and 1994.

of industries in terms of FDI inflows (with 30% and 13% of the total respectively). Finally, the industry allocation of FDI inflows across states is not homogeneous (table 2). In some states a single industry plays a dominant role in receiving FDI inflows, like Chemicals in New York and Pennsylvania (43% and 64% of the state's total respectively), and Stone/Clay/Glass in Florida (40% of the state's total).

The present study evaluates the effects of FDI inflows on employment and wages in the respective industries and US states in the sample. The employment and wages data (in annual frequencies) come from the Bureau of Labor Statistics, and record the number of employees in each manufacturing industry and state, along with their average hourly earnings. The description of the rest of the data appears in Appendix A.

4. Empirical Results

The empirical analysis focuses on the impact of FDI flows on industry employment $\left(L_{ijt}\right)$ and real wages $\left(W_{ijt}\right)$ in the respective states that host the FDI inflows. At the same time, in estimations control variables are used to account for several other factors that are expected to influence local employment and wages. Specifically, fixed investment $\left(INV_{it}\right)$ by domestic companies increases labor demand. In the present study $\left(INV_{it}\right)$ is proxied by the real value of total capital expenditure in each 2-digit SIC manufacturing industry normalized by the real value of fixed capital in the same industry. The export orientation of an industry, $\left(EXP_{it}\right)$, is captured by the share of its exports out of its domestic shipments. Also, real exchange rate fluctuations $\left(E_{it}\right)$ indicate the erosion of industry sales due to import penetration, and are proxied by the fluctuations of the log of a detrended trade-weighted real exchange rate of the US dollar adjusted appropriately by the share of imports out of real shipments for each 2-digit SIC manufacturing industry in the US.

Fluctuations in industry demand are proxied by the deviation of the specific industry's business cycle from the aggregate business cycle $\left(CYCLE_{it}\right)$. In the spirit of Goldberg and Tracy [1999], the log of real domestic industry shipments is regressed on a linear time trend and the residuals $\left(DEM_{it}\right)$ are preserved. The same is also done for the

log of the real US GDP (the residuals being $GDPRES_{it}$), and the industry business cycle with respect to the aggregate business cycle is defined as $CYCLE_{it} = DEM_{it} - GDPRES_{it}$.

In the estimations with wages as the dependent variable, and following Goldberg and Tracy [1999], the tightness of the industry and state specific labor market is also controlled,. State and industry employment $\left(L_{ijt}\right)$ is regressed on a linear time trend preserving the residuals $\left(LRES_{ijt}\right)$. The same is done for employment in US manufacturing (with the residuals being $LRESM_t$). Then the relative tightness in the state and industry specific labor market is defined as $LDEM_{ijt} = LRES_{ijt} - LRESM_t$.

Finally, wages are also influenced by shifts in labor demand due to changes in labor productivity, calculated as the ratio between value-added in an industry and the number of production workers' hours in the same industry. In estimations a detrended value $\left(PROD_{it}\right)$ of this ratio is used.

4.1 Labor Market Effects of FDI Inflows

The data in use are a three dimensional panel: across states, industries and time. In all estimations, the Fixed and the Random Effects models are used, but in the paper only the results from the most appropriate model among the two (based on the Hausman test) are presented. Initially, in each estimation all data are pooled together and industry and state dummy variables are included to control for any heterogeneity either across industries or states. Then, estimations are performed for each state individually. Notice finally that all regressors are in logs.

Reduced form equations (1) and (2) are estimated to measure the FDI effects on local employment and wages respectively.

$$L_{ijt} = f\left(FDI_{ijt}, INV_{it}, EXP_{it}, E_{it}, CYCLE_{it}\right) \quad (1)$$

$$W_{ijt} = f\left(FDI_{ijt}, EXP_{it}, E_{it}, PROD_{it}, LDEM_{ijt}\right) \quad (2)$$

Table 3 records the results from estimating equations (1) and (2) for all the data pooled together ("All States") and also for each US state in the sample individually. For

brevity, we only report the estimated coefficients for $\left(FDI_{ijt}\right)$, while the ones for the control variables are available on request.[6] It appears that FDI inflows have positive effects on both employment and wages when all industries and states are pooled together. However, the estimated coefficient in the employment equation is not statistically significant while it is significant in the wages equation. Finally, the estimated coefficients are relatively small. Overall, it appears that FDI inflows have rather weak expansionary effects on local employment and wages for the group of industries and states in our sample.

Next, equations (1) and (2) are estimated again for each of the ten US states in the sample (table 3). The reported estimated elasticities show that FDI inflows have a wide range of effects on local employment and wages across US states. FDI seems to expand local employment in California, Illinois, and New York, while it depresses employment in Massachusetts, Pennsylvania and Texas. On the other hand, it increases local wages in most US states, with the strongest effects recorded in California, and Pennsylvania, while it depresses wages in Connecticut and Florida. These diverse results across states can perhaps explain the weak FDI effects on employment and wages when all states in the sample were pooled together. The remaining part of the paper focuses on the notion that the industry composition of FDI flows is responsible for the weakness of the local labor market effects of FDI inflows across US states.

4.2 Industry Composition of FDI and Labor Market Effects

Axarloglou et.al. (2002) place an emphasis on the industry composition of FDI inflows in explaining the local labor market effects of these flows. Specifically, they show that FDI inflows in Printing and Publishing (SIC 27), Petroleum (SIC 29), Electrical Machinery (SIC 36), Transportation Equipment (SIC 37) and Instruments (SIC

[6] In estimating equation (1), $\left(INV_{it}\right)$ and $\left(CYCLE_{it}\right)$ have usually a positive and statistically significant impact on employment, while $\left(E_{it}\right)$ has a negative and statistically significant impact. On the other hand, in estimating equation (2), $LDEM_{ijt}$ and $\left(PROD_{it}\right)$ have in most cases positive and statistically significant impact on wages, while $\left(E_{it}\right)$ a negative and statistically significant impact. Finally, $\left(EXP_{it}\right)$ is usually insignificant in both estimations.

38), have a positive and statistically significant impact on local employment, while FDI inflows in Apparel (SIC 23), Paper (SIC 26), Leather (SIC 31), and Stone/Clay/Glass (SIC 32) depress local employment.[7] Similarly, they find that FDI inflows in Printing and Publishing (SIC 27), Rubber (SIC 30), Transportation Equipment (SIC 37) and Instruments (SIC 38) have positive effects on local wages, while FDI inflows in Leather (SIC 31), Stone/Clay/Glass (SIC 32) and Electrical Machinery (SIC 36) have negative effects on local wages.[8] These findings motivate the need to examine the relative strength of FDI's labor market effects in these industry subgroups with respect to the rest of the industries in manufacturing and across each of the US states in the sample.

Thus, an appropriate dummy variable is constructed for each of the above mentioned groups of industries, and an interaction variable $\left(FDI^{s}_{ijt}\right)$ between $\left(FDI_{ijt}\right)$ and the appropriate group dummy is added in estimations. The estimated coefficient of $\left(FDI^{s}_{ijt}\right)$ indicates the differential impact on local labor markets of FDI inflows in the specific subgroup of industries with respect to the labor market effects of FDI in the rest of manufacturing. Reduced form equations (3) and (4) are estimated for employment and wages respectively.

$$L_{ijt} = f\left(FDI_{ijt}, FDI^{s}_{ijt}, INV_{it}, EXP_{it}, E_{it}, CYCLE_{it}\right) \quad (3)$$

$$W_{ijt} = f\left(FDI_{ijt}, FDI^{s}_{ijt}, EXP_{it}, E_{it}, PROD_{it}, LDEM_{ijt}\right) \quad (4)$$

Equations (3) and (4) are first estimated for the "*employment expanding*" and "*wage boosting*" subgroup of industries respectively (table 4). For each dependent variable, the estimated coefficients of $\left(FDI^{s}_{ijt}\right)$ and $\left(FDI_{ijt}\right)$ are reported in the columns "Employment Expanding" or "Wage Boosting" subgroup and the "Rest" respectively.[9] FDI inflows in the "*employment expanding*" subgroup of industries have a much stronger positive effect on employment than the rest of manufacturing industries when all US

[7] Call the first group of industries "*employment expanding*" while the second group "*employment contracting*".
[8] Call the first group of industries "*wage boosting*" while the second one "*wage depressing*".
[9] For brevity the estimated coefficients for the other control variables are not reported but are available upon request.

states in the sample are pooled together. Also, these effects hold true in five US states (half of the sample) while in two other states (New Jersey and Pennsylvania) the effects are exactly the opposite.

On the other hand, FDI inflows in the "*wage boosting*" subgroup of industries have stronger effects on wages than the rest of the manufacturing industries in six US states and for all states polled together. Overall, the industries that have been identified in Axarloglou et.al. (2002) for having positive labor market effects in a group of ten US states appear to have similar effects in several of these states individually.

Next, equations (3) and (4) are estimated again focusing now on the "*employment contracting*" and "*wage depressing*" subgroup of industries (table 5). In all but two states in the sample FDI inflows in the respective subgroup of industries appear to depress local employment and wages more than the FDI flows in the rest of manufacturing industries. Notice also that in most states, these detrimental effects are much stronger than they appear for the full sample of US states.

Overall, FDI inflows in industries such as Printing and Publishing, Transportation Equipment and Instruments appear to have positive labor market effects in several US states while FDI inflows in Leather and Stone/Clay/Glass depress local employment and wages in most US states in the sample.

4.3 Labor Market Effects of the Composition of FDI Inflows in US States

Table 2 shows the uneven industry distribution of FDI inflows across US sates. For instance, in New Jersey, New York and Pennsylvania approximately 44%, 43% and 64% of the total FDI inflows in these states are in Chemicals. In Texas, approximately 60% of the total FDI the state receives is in Chemicals and Petroleum, while in Florida 40% of FDI is in Stone/Clay/Glass. Apparently, in each state few industries are the dominant recipients of FDI inflows either due to agglomeration effects or perhaps due to state economic incentives targeting FDI inflows in specific industries. However, as discussed already, FDI inflows in some industries have positive effects on local labor markets while in some other industries negative effects. Consequently, it is interesting to examine if individual states actually benefit in terms of employment and wages from the fact that only few industries dominate in receiving most of the FDI inflows in the state.

Thus, for each state in the sample the top two industries that receive most of the FDI inflows are identified. In seven out of the ten states in the sample, the top two industries receive more than 60% of the state's total FDI inflows, while in the rest (California, Massachusetts and Illinois) the top two industries receive between 36% and 43% of the total. For each state an appropriate dummy variable for the top two industries is created, and an interaction variable $\left(FDI_{ijt}^{d}\right)$ between the dummy variable and $\left(FDI_{ijt}\right)$ is added in equations (1) and (2). The estimated coefficient for $\left(FDI_{ijt}^{d}\right)$ measures the difference in the labor market effects of FDI inflows in the top two industries in each state with respect to FDI that flew in the rest of manufacturing in the same state. Equations (5) and (6) are estimated for local employment and wages effects.

$$L_{ijt} = f\left(FDI_{ijt}, FDI_{ijt}^{d}, INV_{it}, EXP_{it}, E_{it}, CYCLE_{it}\right) \quad (5)$$

$$W_{ijt} = f\left(FDI_{ijt}, FDI_{ijt}^{d}, EXP_{it}, E_{it}, PROD_{it}, LDEM_{ijt}\right) \quad (6)$$

Table 6, the structure of which is similar to table 5, records the results. In California, Florida, New Jersey and Pennsylvania, the inflow of FDI in their respective top two industry recipients seems to benefit local employment. However, in Massachusetts, the FDI in the top two industries is detrimental to employment. On the other hand, in California, Florida, Illinois, New Jersey and Ohio, the dominance of the top two industries as recipients of FDI depresses local wages while in Massachusetts, New York, Pennsylvania and Texas it boosts local wages. Consequently, the disproportional distribution of FDI inflows in just few industries in each US state does not appear to have homogeneous results on local labor markets. This uneven pattern of FDI inflows has a mixed impact on local labor markets in California, Florida, Massachusetts, and New Jersey, and only in Pennsylvania it seems to help both employment and wages.

5 Policy Recommendation

Recently, it is a common practice among US states to establish strong incentives in attracting FDI with the hope to benefit out of it. The empirical results discussed in section 4.1 show that on average, very few US states have actually benefited in terms of both local employment and wages from FDI inflows in manufacturing. Perhaps, the amount of FDI inflows they received was not strong enough to have a noticeable impact on local economies. Or, as the present study claims, the industry composition of the FDI inflows might wash out FDI's labor market effects, as FDI has very diverse labor market effects across industries in manufacturing.

As discussed already, FDI flows in "*employment expanding*" and "*wage boosting*" industries boost usually local employment and wages respectively. However, FDI in Printing and Publishing and Transportation Equipment appear to boost at the same time both local employment and wages.[10] US states then strategically might want to target FDI inflows in these two industries with the hope to benefit in terms of both employment and wages. To investigate this issue, an interaction variable $\left(FDI^{r}_{ijt}\right)$ between $\left(FDI_{ijt}\right)$ and a dummy variable appropriate for the "*strategic group*" is added in equations (1) and (2), giving equations (7) and (8).

$$L_{ijt} = f\left(FDI_{ijt}, FDI^{r}_{ijt}, INV_{it}, EXP_{it}, E_{it}, CYCLE_{it}\right) \quad (7)$$

$$W_{ijt} = f\left(FDI_{ijt}, FDI^{r}_{ijt}, EXP_{it}, E_{it}, PROD_{it}, LDEM_{ijt}\right) \quad (8)$$

The estimated coefficient of $\left(FDI^{r}_{ijt}\right)$ (table 7) indicates the differential impact on local employment and wages of FDI in the "*strategic group*" with respect to the rest of the industries in manufacturing.

In terms of employment, the FDI inflows in the "*strategic group*" of industries expand local employment and wages in eight (out of ten in the sample) US states. Also, they boost both local employment and wages in six states while they have mixed labor

[10] Call these two industries the "*strategic group*".

market effects in the rest of the states in the sample. Apparently, FDI inflows in Printing and Publishing and Transportation Equipment seem to have positive and robust labor market effects in several US state economies. Perhaps, this explains the effort the state of Alabama put in attracting foreign-owned automobile plants.[11] Consequently, targeting certain industries in terms of attracting FDI inflows might be a successful strategy for US states in helping their local labor markets.

6. Conclusions

The present study sheds light on the impact of FDI inflows on local economies of the US states receiving the FDI. It appears that FDI inflows have rather weak effects on local employment and wages in most of the states in the sample. However, these results are primarily due to the industry composition of the FDI inflows. FDI inflows in a subgroup of industries that includes Printing and Publishing, Transportation Equipment and Instruments have positive effects on local employment and wages in several US states. On the other hand, FDI inflows in industries such as Leather and Stone/Clay/Glass have detrimental effects on local labor markets in most states in the sample.

FDI inflows are unevenly distributed across industries within a state. Overall, FDI inflows in the top industry recipients do not seem to benefit the local economics of the states that receive the FDI. Finally, FDI inflows in Printing and Publishing and Transportation Equipment stimulate the labor markets of almost all US states in the sample indicating that states should focus on attracting FDI in these specific industries.

The present study emphasizes that FDI inflows in some industries consistently benefit and in some other industries consistently hurt the local economies that host them. This finding indicates that the industry characteristics of FDI inflows are very important in explaining their effects on the local economies. A more thorough analysis of these characteristics is left for future research.

[11] The Wall Street Journal, 11/24/1993.

APPENDIX A

US States in the Sample: California, Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, and Texas.

Foreign Direct Investment (FDI): FDI inflows in each 2-digit SIC manufacturing industry and in each state of the sample. (Source: ITA Data Set, US Department of Commerce).

Employment: Thousands of persons employed in each 2-digit SIC manufacturing industry and in each state of the sample. (Source: US Department of Labor, Bureau of Labor Statistics).

Wages: Average hourly earnings in each 2-digit SIC manufacturing industry and in each state of the sample (in current dollars per hour). (Source: US Department of Labor, Bureau of Labor Statistics).

Shipments: Total nominal value of shipments of each 2-digit SIC manufacturing industry. (Source: Eric J. Bartelsman, Randy A. Becker, and Wayne B. Gray: NBER-CES Manufacturing Industry Database).

Industry Value-Added: Nominal value-added of each 2-digit SIC manufacturing industry. (Source: Eric J. Bartelsman, Randy A. Becker, and Wayne B. Gray: NBER-CES Manufacturing Industry Database).

Total Capital Expenditure: Nominal expenditure on fixed assets in each 2-digit SIC manufacturing industry. (Source: Eric J. Bartelsman, Randy A. Becker, and Wayne B. Gray: NBER-CES Manufacturing Industry Database).

Investment and Shipments Deflators: Appropriate deflators for fixed investment and shipments. (Source: Eric J. Bartelsman, Randy A. Becker, and Wayne B. Gray: NBER-CES Manufacturing Industry Database).

Exports and Imports: Nominal exports and imports each 2-digit SIC manufacturing industry. (Source: Robert Feenstra: U.S. Import and Export Data, NBER).

Exchange rate: Trade-weighted real exchange value of U.S. Dollar versus currencies of broad group of major U.S. trading partners. (Source: Federal Reserve Board of Governors).

APPENDIX B

Table 1.
FDI Inflows Across Industries and States
(In Millions of Current Dollars 1974-94)

Industry (SIC)	Calif	Conect	Florida	Illinois	Mass	N.Jersey	N.York	Ohio	Pennsyl.	Texas	Total
20	4759.7	1208	1287.5	2750.3	63.7	57.7	1844.8	237.7	340.8	474.9	13025.1
21	0	0	0	0.9	0	415	0	0	0	5.2	421.1
22	74	0	15	2	20.5	34	217.4	32.5	42.5	0	437.9
23	30.4	0	0	30	0	13	216.9	228	2.9	0	521.2
24	330.1	0	0	0	0	0	4.8	10	0	0	344.9
25	15	0	0	8.8	0.9	0	19.2	38	10	0	91.9
26	705.6	0	130	784.6	1843.4	1.7	869.8	147.8	694.8	40	5217.7
27	487.5	705.6	179.5	1585.3	408.2	502.1	9131.1	810	170.3	340	14319.6
28	1748.01	4809.3	101.3	2816.5	1416.4	4896	19513.4	2025.5	13461.3	4829.3	55617.01
29	941	0.3	0	769	50	219	12.4	8291.6	420	4709.4	15412.7
30	163.1	260.5	67.5	44.3	129	113.1	271.3	5283.9	113	80.2	6525.9
31	0	0	0	0	63.2	1.9	17	0	7.8	0	89.9
32	724.8	701.1	1921.2	4.3	2004	135.6	395.7	643.9	673.4	2251.1	9455.1
33	1865.4	209	407	88.8	71.2	216.7	1126.8	1759.9	1704.6	568.8	8018.2
34	123.7	175.3	45.6	354.5	122.5	248.5	1329.1	815.6	325.7	64	3604.5
35	3433.9	2967.8	88.8	1803.8	1183.2	872.4	538.1	369.3	910.2	505.1	12672.6
36	6153.4	1552.5	429.7	2894.9	1583.8	821	7461.4	1501.3	804.2	1122.5	24324.7
37	1363.8	25.1	28.6	731	0	3.3	423.5	2166	966.6	29.3	5737.2
38	2172.9	60.4	74	349.5	1004.9	649.3	1349.2	248.7	352.5	840.5	7101.9
39	26.9	14.5	0	363	0.6	2043.4	198.8	3.3	41.7	0	2692.2
Total	25119.21	12689.4	4775.7	15381.5	9965.5	11243.7	44940.7	24613	21042.3	15860.3	185631.3

Table 2.
Industry Composition of FDI Inflows Across States (1974-94).
Percent of Out of Total FDI in Each State

Industry (SIC)	Calif	Conect	Florida	Illinois	Mass	N.Jersey	N.York	Ohio	Pennsyl.	Texas
20	0.189484	0.095198	0.269594	0.178806	0.006392	0.005132	0.04105	0.009657	0.016196	0.029943
21	0	0	0	5.85E-05	0	0.03691	0	0	0	0.000328
22	0.002946	0	0.003141	0.00013	0.002057	0.003024	0.004837	0.00132	0.00202	0
23	0.00121	0	0	0.00195	0	0.001156	0.004826	0.009263	0.000138	0
24	0.013141	0	0	0	0	0	0.000107	0.000406	0	0
25	0.000597	0	0	0.000572	9.03E-05	0	0.000427	0.001544	0.000475	0
26	0.02809	0	0.027221	0.051009	0.184978	0.000151	0.019354	0.006005	0.033019	0.002522
27	0.019407	0.055605	0.037586	0.103065	0.040961	0.044656	0.203181	0.032909	0.008093	0.021437
28	0.069589	0.379001	0.021212	0.18311	0.14213	0.435444	0.434203	0.082294	0.639726	0.30449
29	0.037461	2.36E-05	0	0.049995	0.005017	0.019478	0.000276	0.336879	0.01996	0.29693
30	0.006493	0.020529	0.014134	0.00288	0.012945	0.010059	0.006037	0.214679	0.00537	0.005057
31	0	0	0	0	0.006342	0.000169	0.000378	0	0.000371	0
32	0.028854	0.055251	0.402287	0.00028	0.201094	0.01206	0.008805	0.026161	0.032002	0.141933
33	0.074262	0.01647	0.085223	0.005773	0.007145	0.019273	0.025073	0.071503	0.081008	0.035863
34	0.004925	0.013815	0.009548	0.023047	0.012292	0.022101	0.029575	0.033137	0.015478	0.004035
35	0.136704	0.23388	0.018594	0.117271	0.11873	0.07759	0.011974	0.015004	0.043256	0.031847
36	0.244968	0.122346	0.089976	0.188207	0.158928	0.073019	0.166028	0.060996	0.038218	0.070774
37	0.054293	0.001978	0.005989	0.047525	0	0.000293	0.009424	0.088002	0.045936	0.001847
38	0.086504	0.00476	0.015495	0.022722	0.100838	0.057748	0.030022	0.010104	0.016752	0.052994
39	0.001071	0.001143	0	0.0236	6.02E-05	0.181737	0.004424	0.000134	0.001982	0

Table 3.
Labor Market Effects of FDI Inflows in US States:
All Industries

State	Dependent Variables		$\overline{R}^2$		Sample
	L_{ijt}	W_{ijt}	Equation (1)	Equation (2)	
California	0.0704*	0.0117**	0.188	0.268	162
	(2.083)	(1.723)			
Connecticut	-0.0072	-0.0059	0.008	0.099	52
	(-0.161)	(-0.679)			
Florida	0.0078	-0.0032	0.099	0.175	58
	(0.111)	(-0.292)			
Illinois	0.0636	0.0068	0.071	0.286	98
	(1.530)	(0.855)			
Massachusetts	-0.0384	0.0019	0.316	0.181	78
	(-0.905)	(0.375)			
New Jersey	0.0192	0.0093	0.223	0.337	97
	(0.529)	(1.199)			
New York	0.0437**	0.0091	0.176	0.149	169
	(1.865)	(1.312)			
Ohio	0.0116	0.0053	0.262	0.502	101
	(0.353)	(0.823)			
Pennsylvania	-0.0235	0.0172**	0.139	0.312	108
	(-0.706)	(1.721)			
Texas	-0.0066	0.0097	0.142	0.662	91
	(-0.185)	(1.029)			
All States	0.0143	0.0048*	0.306	0.730	1014
	(1.342)	(2.534)			

Notes: T-statistics are reported in parenthesis. A (*) or (**) next to a reported coefficient indicates its significance at 0.001 and 0.005 levels.

Table 4.
Positive Labor Market Effects of FDI Inflows in US States:
"Employment Expanding" and "Wage Boosting" Subgroups of Industries

State	Dependent Variables				$\overline{R}^2$		Sample
	L_{ijt}		W_{ijt}		Equation (3)	Equation (4)	
	Rest	"Employment Expanding"	Rest	"Wage Boosting"			
California	0.0164	0.119*	0.0102	0.0205*	0.271	0.315	162
	(0.473)	(4.114)	(1.523)	(3.181)			
Connecticut	-0.0432	0.161*	-0.0084	0.0312	0.243	0.118	52
	(-1.128)	(3.061)	(-0.961)	(1.459)			
Florida	-0.0343	0.182*	-0.0037	-0.0048	0.101	0.152	58
	(-0.478)	(2.233)	(-0.334)	(-0.303)			
Illinois	0.0546	0.0307	-0.0041	0.0312*	0.067	0.358	98
	(1.246)	(0.728)	(-0.498)	(3.367)			
Massachusetts	-0.0834*	0.171*	0.0021	0.0073	0.447	0.163	78
	(-2.117)	(4.345)	(0.386)	(1.316)			
New Jersey	0.0413	-0.106*	0.0066	0.0168**	0.267	0.387	97
	(1.137)	(-2.534)	(0.861)	(1.724)			
New York	-0.0019	0.165*	-0.0007	0.0466*	0.279	0.291	169
	(-0.089)	(7.035)	(-0.118)	(6.144)			
Ohio	0.0108	0.0031	-0.0011	0.0120**	0.253	0.510	101
	(0.315)	(0.0965)	(-0.151)	(1.716)			
Pennsylvania	-0.0136	-0.0782*	0.0139	0.0326*	0.189	0.359	108
	(-0.389)	(-2.151)	(1.479)	(2.717)			
Texas	0.0049	-0.0384	0.0102	-0.0040	0.145	0.657	91
	(0.134)	(-1.127)	(1.055)	(-0.289)			
All States	-0.0067	0.0584*	-0.0013	0.0252*	0.654	0.758	1014
	(-0.696)	(4.418)	(-0.665)	(7.703)			

Notes: T-statistics are reported in parenthesis. A (*) or (**) next to a reported coefficient indicates its significance at 0.001 and 0.005 levels.

Table 5.
Negative Labor Market Effects of FDI Inflows in US States:
"Employment Contracting" and "Wage Depressing" Subgroups of Industries

State	Dependent Variables				$\overline{R}^2$		Sample
	L_{ijt}		W_{ijt}		Equation (3)	Equation (4)	
	Rest	"Employment Contracting"	Rest	"Wage Depressing"			
California	0.0789*	-0.1392*	0.0139*	-0.0097	0.215	0.271	162
	(2.513)	(-2.585)	(2.019)	(-1.467)			
Connecticut	-0.0002	-0.372*	0.0064	-0.0346*	0.204	0.501	52
	(-0.004)	(-2.722)	(1.098)	(-4.588)			
Florida	0.0055	0.0075	-0.0031	0.00004	0.074	0.155	58
	(0.071)	(0.089)	(-0.235)	(0.003)			
Illinois	0.0837*	-0.287*	0.0119**	-0.0549*	0.242	0.466	98
	(2.208)	(-4.193)	(1.678)	(-5.287)			
Massachusetts	0.0161	-0.182*	0.0082	-0.0115*	0.404	0.217	78
	(0.376)	(-3.285)	(1.545)	(-2.250)			
New Jersey	0.0199	-0.0749	0.0123	-0.0223*	0.215	0.377	97
	(0.547)	(-0.698)	(1.609)	(-2.366)			
New York	0.0608*	-0.119*	0.0149*	-0.0259*	0.089	0.209	169
	(2.582)	(-2.944)	(2.159)	(-3.159)			
Ohio	0.0222	-0.1029*	0.0082	-0.0167*	0.290	0.527	101
	(0.672)	(-1.97076)	(1.298)	(-2.445)			
Pennsylvania	0.0039	-0.118*	0.0211*	-0.0201**	0.203	0.319	108
	(0.116)	(-2.495)	(2.184)	(-1.878)			
Texas	0.0226	-0.140*	0.0155**	-0.0242*	0.201	0.676	91
	(0.628)	(-2.709)	(1.645)	(-2.879)			
All States	0.0209*	-0.0844*	0.0138*	-0.0219*	0.657	0.609	1014
	(2.347)	(-4.248)	(6.017)	(-5.889)			

Notes: T-statistics are reported in parenthesis. A (*) or (**) next to a reported coefficient indicates its significance at 0.001 and 0.005 levels.

Table 6.
Labor Market Effects of FDI Inflows in US States:
State-Specific Dominant Industries Receiving FDI

State	Dependent Variables				$\overline{R}^2$		Sample
	L_{ijt}		W_{ijt}		Equation (5)	Equation (6)	
	Rest	Top-two Industries	Rest	Top-two Industries			
California	-0.0192	0.177*	0.0232*	-0.0339*	0.426	0.378	162
	(-0.654)	(7.303)	(3.516)	(-5.187)			
Connecticut	0.0172	-0.0461	-0.0163	0.0276*	0.002	0.442	52
	(0.324)	(-0.921)	(-0.213)	(3.216)			
Florida	-0.0476	0.158*	0.0057	-0.0209**	0.242	0.222	58
	(-0.715)	(2.344)	(0.475)	(-1.726)			
Illinois	0.0752	0.0288*	0.0148*	-0.0364*	0.067	0.409	98
	(0.167)	(-0.655)	(1.923)	(-4.036)			
Massachusetts	0.0113	-0.179*	-0.0042	0.0168*	0.409	0.272	78
	(0.266)	(-3.281)	(-0.759)	(2.486)			
New Jersey	-0.0752*	0.163*	0.0218*	-0.0265*	0.374	0.407	97
	(-1.964)	(4.624)	(2.484)	(-2.625)			
New York	0.0370	0.0173	0.0049	0.0186*	0.211	0.186	169
	(1.422)	(0.607)	(0.692)	(2.371)			
Ohio	-0.00006	0.0412	0.0128*	-0.0287*	0.264	0.555	101
	(-0.002)	(0.986)	(1.991)	(-3.419)			
Pennsylvania	-0.0533	0.0676*	0.0028	0.0382*	0.179	0.441	108
	(-1.521)	(2.232)	(0.284)	(3.872)			
Texas	0.0053	-0.0246	-0.0172*	0.0708*	0.137	0.767	91
	(0.133)	(-0.663)	(-1.97)	(7.347)			
All States	0.0091	0.0099	0.0122*	-0.0232*	0.653	0.755	1014
	(0.929)	(0.761)	(6.054)	(-7.966)			

Notes: T-statistics are reported in parenthesis. A (*) or (**) next to a reported coefficient indicates its significance at 0.001 and 0.005 levels.

Table 7.
Positive Labor Market Effects of FDI Inflows in US States:
The "Strategic Group" of Industries

State	Dependent Variables		$\overline{R}^2$	Sample
	L_{ijt}	W_{ijt}		