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ATTRACTING FOREIGN DIRECT INVESTMENT TO STATES: OUTCOMES, BUDGETS, AND FOREIGN OFFICES

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Introduction

Foreign direct investment (FDI) in the United States rose from \$83 billion to \$404 billion between 1980 and 1990 according to the U.S. Department of Commerce (1992). States compete to attract such inflows, but intense interstate competition is a relatively recent phenomenon. Luger and Shetty (1985) reported only ten states with programs to attract FDI in 1969; by 1979 this number had increased to 47. The National Association of State Development Agencies (NASDA) similarly reports that budgets for state international activities have nearly doubled since the group began tracking such expenditures in 1984 (NASDA, 1990).

By the early 1990s officials in all states considered attracting FDI to be an integral part of a state's economic development strategy. Considerable potential benefits seemed to flow from FDI regardless of the form it took: new-startups, acquisitions, or mergers. Benefits were linked to new technologies, enhanced managerial skills, creation and retention of jobs, infusions of capital, and increases in tax revenues. States encountered costs, however, in terms of explicit payments for marketing, promotion, and financial inducements; possible losses of domestic autonomy for foreign affiliates; and direct foreign competition to local businesses. While Liner and Ledebur (1987) argue that states should respond to interstate competition by developing a systematic analysis of the costs and benefits of FDI, Feiock (1988) points out that, although economic development programs are expensive, the opportunity costs of not engaging in such programs are even greater.

With respect to outcomes, the distribution of FDI is highly uneven across space. In 1990, for example, almost one-half of the 894 foreign

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affiliates in the United States with 1,000 or more workers were located in six states: California, Illinois, Ohio, New York, Pennsylvania, and Texas (BEA, 1992). Is success in attracting FDI related to promotion and marketing efforts by states? Research results are mixed. Numerous problems exist in earlier studies, including: analyzing only one source of FDI, using different measures of FDI penetration, measuring gross international budgets without distinguishing promotion of exports and FDI, and concentrating on individual states or specific geographic regions. We attempt to overcome these shortcomings by examining international budgets of states in greater detail through a combined use of secondary data from several sources with primary data generated from a comprehensive survey of officials in all 50 states. Cluster analysis of FDI outcome measures produces groups of states by low, medium, and high levels of penetration for investment flows. Statistical tests across these clusters for several measures of FDI, for data on international budgets, and for characteristics of state foreign offices yield significant associations between the actual size of FDI inflows and state commitments to attracting FDI.

Promotion and Marketing

Evidence on the effectiveness of state development offices in promoting international business is far from consistent; in some cases, results conflict. With regard to trade, Coughlin and Cartwright (1987) find that exports expanded \$432 for every dollar increase in state spending. They conclude from this high promotional elasticity that state programs are effective. In contrast, O'Rourke (1985), Reid (1984), and Samiee and Walters (1991) find that small firms make only limited use of government programs and that export promotion is ineffective. Kotabe and Czinkota (1992) suggest that states can improve effectiveness in promoting exports through a systemic approach in identifying state requirement efforts at each stage of exporting.

In terms of inflows of foreign investment, Luger and Shetty (1985) conclude that promotional activities have a small impact. More recently, however, Coughlin, Terza and Arromdee (1991) report that spending by states to attract foreign inflows brings success; Kozlowski and Weekly (1991) find that states with large international budgets experience substantial gains in the shares of state employment accounted for by foreign affiliates.

State agencies employ a variety of marketing activities (trade missions, advertising, and promotional campaigns) in order to provide information to prospective multinational enterprises whose decisions to invest in the United States largely are driven by access to sizable markets (Rugman, 1980; Solocha, Soskin, and Kasoff, 1990). Healy (1991) and Johnson, Gunderson, and McDonald (1992) point out that the quality of information matters in attracting foreign investors. State offices in

foreign countries represent important channels for distributing information and serve as foreign bases for promotional operations. They perform a wide range of services and fit the conclusion reached by the Georgia World Congress Institute (1982, p. 34) from its survey of foreign firms: "... the most effective method of increasing foreign direct investment seems to be personal contact with potential investors: an overseas presence may be the best way to increase the chances of investors becoming interested in a state." Woodward (1992) supports this finding with information from Japan; specifically, he demonstrates that foreign offices in Japan contribute significantly to a higher probability for a state to receive investment from Japanese businesses.

Primary and Secondary Data

Inflows of foreign direct investment to states can take the form of new facilities, joint ventures, and acquisitions. Little (1988) reports that 80 percent of invested funds and affiliate employment come from foreign acquisitions rather than new investments or joint ventures. Foreign acquisitions contribute to achieving objectives for state economic development because of their potential impact on industrial retention. Our measures of FDI penetration into states come from data released by the Bureau of Economic Analysis of the U.S. Department of Commerce for 1990. Four variables are included for each state: the current dollar value of property, plant, and equipment owned by foreign affiliates, the number of foreign affiliate establishments, the number of foreign affiliate establishments with 1,000 or more employees, and the number of employees in foreign affiliates. Our primary focus is the geographic distribution of the aggregate flow of FDI into the United States. Consequently, we base our specification of FDI penetration on the combined size of each of these four outcome variables.

Reports by the National Association of State Development Agencies (NASDA), which conducts a self-reported survey of state international offices on a bi-annual basis, provide data on international budgets and marketing activities for each of the 50 states. These reports produce the current dollar value of the budget for each state's international office, the dollars budgeted to attract FDI, the percentage of the international budget dedicated to attracting FDI, the number of foreign offices, and the total number of staff members in foreign offices on the state payroll. They are more detailed than variables used in previous studies because they distinguish the promotion of exports and the attraction of FDI by states. Furthermore, these data reflect state budgets and marketing activities for 1988, which represents a two year lead between state expenditures and possible outcomes from FDI for 1990 noted above.

Primary data from a survey of state officials supplement the secondary data from the BEA and NASDA. Using a detailed and structured

questionnaire, telephone interviews with a senior official in each state's international office generate additional data about marketing efforts. State officials were questioned about marketing and promotion of international business as well as their perceptions of the effectiveness of these programs. Because officials in all states completed the questionnaire (92 percent by phone and 8 percent by a combination of phone and self-reporting), primary data come not from a sample but from the universe of possible respondents in all 50 states.

The tabulation below gives the profile of respondents by job titles and education. Just over three-fourths of officials are directors, acting directors, deputy commissioners, or branch chiefs for state international programs. All have college degrees, and nearly two-thirds have postgraduate training.

Title	Education		
Director	76%	College graduate	34%
Consultant/specialist	8%	Postgraduate	64%
Foreign trade representative	8%	No response	2%
Assistant director	6%		
No response	2%		

Levels of FDI Penetration

Luger and Shetty (1985) and Feiock (1988) use *ad hoc* approaches to group states by outcome measures that represent goals of state FDI attraction efforts. Cluster routines based on the average linkage between groups method (unweighted pair-group method using arithmetic averages) are performed on standardized variables because of differences in units among the outcome variables for the 50 states in this study. This procedure takes into account information about all pairs and not only the nearest or farthest pairs; it is preferred, therefore, to the single or complete linkage method. The cluster analysis produces low, medium, and high FDI penetration categories that complete linkage clustering and discriminant analysis confirm.

Table 1 presents groups for 50 states based on four FDI outcome variables. Twelve mostly large and heavily industrialized states make up the high penetration group. Seven of those states are located along the east coast (Florida, Georgia, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania); three in the industrial midwest (Illinois, Michigan, and Ohio); one in the southwest (Texas); and one along the west coast (California).

The clusters reflect an uneven geographic distribution of FDI in the United States. The high penetration group accounts for two-thirds of the 894 foreign affiliates with 1,000 or more employees in 1990. Businesses

in many of these states responded to international competition through corporate restructuring, downsizing, and joint ventures with foreign companies. Some of these states are not low cost business locations: New York, Michigan, Illinois, and Pennsylvania, for example; yet large numbers of domestic firms have been acquired by foreign companies. The high penetration states have something to offer foreign investors in the form of acquisitions and joint ventures in addition to being locations for new business start-ups.

Table 1—Clusters Based on Outcomes from FDI

Low Penetration	Medium Penetration	High Penetration
Alabama	Arizona	California
Alaska	Colorado	Florida
Arkansas	Connecticut	Georgia
Delaware	Hawaii	Illinois
Idaho	Indiana	Massachusetts
Iowa	Kentucky	Michigan
Kansas	Louisiana	New Jersey
Maine	Maryland	New York
Mississippi	Minnesota	North Carolina
Montana	Missouri	Ohio
Nebraska	South Carolina	Pennsylvania
Nevada	Tennessee	Texas
New Hampshire	Virginia	
New Mexico	Washington	
North Dakota	Wisconsin	
Oklahoma		
Oregon		
Rhode Island		
South Dakota		
Utah		
Vermont		
West Virginia		
Wyoming		
23 states	15 states	12 states

Nearly one-half of the states fall into the low FDI penetration cluster. These states seem to have less to offer foreign investors in terms of acquisitions than their high penetration counterparts. The latter contain 3.6 million business establishments and more than 3,500 firms with over 1,000 employees. Comparable figures for the 23 states in the low penetration cluster are 900,000 establishments and 626 large firms. Moreover, these 626 large firms are just 7 percent above the total for California, the biggest state in the high penetration cluster. This size differential also is reflected in the largest state in the low penetration

group, Alabama, that had just 55 percent of the business establishments of Georgia, the smallest state in the high penetration group.

The importance of size cannot be dismissed in attracting FDI. Table 2 shows that, on average, high penetration states include property owned by foreign affiliates that is nearly three times the amount in the medium penetration group, which holds almost the same advantage over the low penetration states. An approximate three-to-one ratio also holds for establishments and employees. Note, for example, that the average number of foreign affiliates with 1,000 or more employees is just three for the 23 low penetration states compared to 15 and 50 for the medium and high penetration groups, respectively.

Analysis of variance across clusters yields low probability values for F-statistics on the four outcome variables (Table 2), suggesting strongly that the three groups differ significantly in terms of each measure of outcome from FDI. Standard one-tailed t-tests confirm significant differences between low and medium penetration groups and between the medium and high penetration groups.

State Budgets for International Activities

Promoting international business reflects state economic development goals, and attracting FDI is an important part of state programs. States commit funds to these activities. Table 2 shows that amounts budgeted to international offices for all programs differ significantly across the three clusters. Funds committed specifically to attracting FDI vary positively with the low to high penetration ordering of states and differ significantly among the groups. These results for all 50 states suggest a positive association between FDI outcomes, measured in several ways, and state budgets for international activities which supports earlier findings by Coughlin, Terza, and Arromdee (1991) and Kozlowski and Weekly (1991). Given the considerably larger FDI outcomes for states in the high penetration cluster, the results point to a higher promotional elasticity for that group.

Interstate competition also drives state budgets for international programs to some degree. The medium penetration cluster of 15 states directs a higher proportion of the international budget to promoting inflows of FDI. Table 2 shows that, on average, this amounts to about one-half of the funds dedicated to international programs. Analysis of variance across clusters reveals no statistically significant difference in the percent of the state international budget devoted to attracting FDI. This underscores the degree of interstate competition within, as well as among, the groups.

Foreign Offices

State governments open foreign offices to promote exports and attract inflows of foreign investment. They provide a presence in foreign

Table 2—ANOVA Results for Outcomes, Budgets, and Foreign Offices by State-Clusters

	Averages by FDI Penetration			F-statistic (probability)
	Low	Medium	High	
Outcome Variables				
Property, plant, & equipment (affiliate owned, \$ millions)	\$3,921	\$9,135	\$26,620	F=18.66 (0.00)
Number of affiliate establishments	264	663	1,405	F=70.10 (0.00)
Affiliates with 1,000 or more employees	3	15	50	F=51.84 (0.00)
Number of affiliate employees	22,944	81,060	243,333	F=56.97 (0.00)
Budget Variables				
State international office	\$637,027	\$1,072,167	\$2,859,167	F=8.86 (0.00)
Dollars budgeted to attract FDI	\$221,596	\$573,659	\$980,090	F=12.19 (0.00)
Percent of international office budgeted to attract FDI	34.1%	50.6%	43.4%	F=1.84 (0.18)
Foreign Office Variables				
Number	1.74	1.93	3.36	F=4.98 (0.01)
Staff	3.39	4.93	10.82	F=11.76 (0.00)
Percent of states reporting a majority of inquiries from foreign offices	62.5%	66.7%	50.0%	$\chi^2=0.68^*$ (0.71)
Percent of states reporting plans for additional offices	47.1%	73.3%	63.6%	$\chi^2=2.36^*$ (0.31)

*Chi-square reported because response is binomial

countries for states to market themselves as locations for starting and acquiring businesses. Foreign offices provide marketing research, generate contracts, and distribute facts on products, resources, and services within states to potential foreign customers. In addition, they host state trade and investment missions and participate in overseas trade shows (NASDA, 1990). Promotion of all international business within a state can lead to additional prospective FDI, and state officials view foreign offices as first-line information sources for all prospects.

Nevertheless, the worldwide distribution of state foreign offices may reflect various combinations of economic and political factors. Table 3 reveals a high concentration of foreign offices in Pacific Rim countries. This may be due to the high volume of trade and investment between the United States and Asia, but it also may reflect a Japanese preference for new investments over acquisitions (Woodward, 1992).

Table 3—Foreign Offices by FDI Penetration Groups

Region	Low	Medium	High	Total
Europe	8	11	12	31
North America	1	0	4	5
Asia	30	18	18	66
Japan	13	9	10	
Other regions	1	0	3	4
Total actual foreign offices	40	29	37	106

Low penetration states have a stronger presence in Asia, accounting for 45 percent of the foreign offices operating on that continent. In our survey, all respondents from the low penetration group reported that Asian offices handled the most inquiries; 93 percent of these respondents indicated that offices in Asia attracted the most foreign investment to their states. In contrast, one-half of the respondents in the high penetration cluster indicated that their European offices received the most inquiries and attracted the most investment. Moreover, only respondents from the high penetration states reported success in attracting FDI from offices in North America.

Foreign offices are significant sources of information and contacts that flow through the staff. Sixty-one percent of state officials report that their foreign offices generate a majority of the initial contacts that lead to FDI within the state. The ANOVA results in Table 2 show no significant difference among the clusters in terms of inquiries from foreign offices. Significant differences exist, however, across the clusters in terms of the number of foreign offices and staff, which conforms to differences for the FDI outcome variables. Almost two-thirds of the low penetration states maintain one person contract offices abroad, but

only one-third of the high penetration states operate such offices. While that type of office does not appear to be as productive as larger operations, it does provide states with a cost-effective means to establishing a presence in foreign countries. These results point to a positive relationship between FDI and the number of offices and staff. They also provide evidence that supports earlier findings from smaller samples by the Georgia World Congress Institute (1982) and Woodward (1992) that personal contacts through foreign offices are important for attracting FDI.

A perception by state officials that foreign offices serve as an effective device for marketing, combined with intense interstate competition for FDI, contributes to plans to open additional foreign offices. Twenty-six of 50 responding state officials revealed such plans. Table 4 shows that Europe and North America dominate as locations for additional foreign offices. Moreover, states in the three clusters target these two continents. This may reflect a partial response to the North American Free Trade Agreement, Europe 1992, the opening of markets in eastern Europe, and the fact that states regard the Pacific Rim as adequately covered through development in the 1980s. Although medium penetration states reveal a greater propensity to open additional foreign offices than the low and high penetration groups, there is no statistically significant difference across clusters (Table 2).

Table 4—Planned Foreign Offices by FDI Penetration

Region	Low	Medium	High	Total
Europe	4	9	3	16
North America	3	9	2	14
Asia	2	4	3	9
Japan	1	2	0	
Other regions	0	0	1	1
Total planned foreign offices	9	22	9	40

Conclusions

Based on data for all 50 states, our results show that states with larger international budgets and more foreign offices have attracted large amounts of the foreign direct investment flowing into the United States. The high FDI penetration group includes mostly large states with something to offer foreign investors in the form of acquisitions, which represents the preponderance of FDI in the United States.

All states engage in global marketing. Budgets for international offices and operations of state foreign offices reflect promotional efforts. Foreign offices give states a significant presence in foreign markets and, therefore, serve as an important component of state

efforts to promote international business. The apparent success of these offices in attracting FDI has spurred states to consider opening new offices in emerging market areas outside the United States. Marketing efforts appear to contribute to success in attracting FDI; this is especially noteworthy for the states classified in the high penetration cluster.

We overcame some shortcomings of previous studies by combining data from secondary sources with primary data generated by surveys of officials in all 50 states. Nevertheless, problems with data still limit the extent to which analyses of the regional aspects of foreign direct investment can be done. As more detailed measures of foreign direct investment in regions become available (for example, distinguishing new investments, joint ventures, and acquisitions), the impact of global marketing efforts by states can be assessed with more precision.

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